

# 誰でも出来る簡単 欧州特許庁での特許調査方法

2011年8月

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1

## 目次

はじめに 欧州特許庁ホームページ I. Espacenet ・検索方法の選択 ・Smart Search (1)~(2) ・Number Search (1)~(15) ・Quick Search (1)~(10) ・トランケーション ・Advanced Search (1)~(14) ・IPC 検索(1)~(7) ・Advanced Search (15)~(16) ・Classification Search (1) ・ECLAコード ・Classification Search (2)~(6)	II. European Patent Register ・About this file (1)~(4) ・Legal status (1)~(2) ・Event history ・Citations ・Patent family ・All documents (1)~(3)
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2

## はじめに

無料で簡単に外国特許を検索する方法として、欧州特許庁(EPO)のホームページでの検索は身近なものになっています。

以前は有料で提供されていたINPADOCのLegal statusやPatent familyがEPOのホームページで無償で提供されるようになったことも、EPOでの検索意義を大きく高めました。

ここでは、その中でも、簡単に行える、特許(出願)公報番号からの特許(出願)公報の取得、対象特許の法的状況や Patent familyの調査方法を中心に、先行外国特許の調査方法についても簡単に説明します。

2011年3月にEPOの特許検索システムは、10年に一度と思われるほどの大幅なVersion upを行いました(Ver.5)。

以前、Espacenetは欧州特許条約締結国の特許庁をミラーサイトとして使用して、検索の一局集中を避けていましたが、現在は、EPOで直に検索する方が早いようです。また、検索結果のエクセルファイルでのダウンロードも、要約は付きませんが可能となり、その有用性は更に増加しました。

3

## 欧州特許庁 ホームページ

The screenshot shows the EPO website homepage. At the top left is the EPO logo with the text 'Europäische Patentamt', 'European Patent Office', and 'Office européen des brevets'. To the right is a search bar with 'Site search' and 'Patent search' tabs, and a search button. Below the search bar is the URL 'http://www.epo.org/'. A navigation menu includes 'Home', 'Searching for patents', 'Applying for a patent', 'Law & practice', 'News & issues', and 'Learning & events'. The main content area features 'Online services' with links like 'Online filing', 'Online fee payment', and 'European Patent Register'. A yellow callout box with a speech bubble points to the 'Searching for patents' link, containing the text: "Searching for patents" をクリック。 To the right, there are sections for 'European Inventor Award 2011' and 'Improving the patent system'. The footer contains 'Website updates', 'News', 'Online services and software', and 'About us'.

4

# I . Espacenet

The screenshot shows the Espacenet homepage. At the top left is the logo of the European Patent Office (EPO) with the text "Europäisches Patentamt", "European Patent Office", and "Office européen des brevets". To the right are search boxes for "Site search" and "Patent search", with a "Search" button. Below these are links for "Deutsch", "English", "Français", "About us", "Contact", and "Service & support". A navigation bar contains "Home", "Searching for patents", "Applying for a patent", "Law & practice", "News & issues", and "Learning & events". The main content area features a "Start searching" section with links to "European patent register", "European publication server", "Espacenet - worldwide patent search", and "More online searching". A yellow callout box points to the "Espacenet - worldwide patent search" link with the text "特許検索には、「Espacenet」をクリックします。". Another yellow callout box points to the "Search essentials" link with the text "「Search essentials」には、Patent family等の有用な情報が記載されています。". To the right is a "European Inventor Award 2011" section with a "Read more" button and a "Become a Facebook fan" button. Below that is a "Improving the patent system" section with a "President's blog" button. At the bottom are sections for "Website updates", "News", "Online services and software", and "About us".

5

# I . Espacenet

The screenshot shows the "Espacenet - patent search" page. At the top left is the EPO logo. To the right are search boxes for "Site search" and "Patent search", with a "Search" button. Below these are links for "Deutsch", "English", "Français", "About us", "Contact", and "Service & support". A navigation bar contains "Home", "Searching for patents", "Applying for a patent", "Law & practice", "News & issues", and "Learning & events". Below the navigation bar are "Free online services", "Subscription products", "Asian patent information", "Patent information centres", and "Essentials". The main content area features a "Espacenet - patent search" section with a "Worldwide patent search" section. A yellow callout box points to the "Open Espacenet at the EPO" button with the text "「Open Espacenet at the EPO」をクリックします。". Below this are sections for "Access Espacenet at the EPO", "Access Espacenet at the European Commission", and "Access Espacenet at national and regional offices". At the bottom are sections for "Getting started" and "Editorial".

6

# I. Espacenet 検索方法の選択

**Espacenet Patent search**

Deutsch English Français  
Contact  
Change country ▾

← About Espacenet Other EPO online services ▾

Search Result list My patents list (0) Query history Settings Help

**SmartSearch**

Quick search  
Advanced search  
Number search  
Classification search

Maintenance news  
Scheduled maintenance  
News flashes  
Latest updates  
Related links

SmartSearch: i Siemens EP 2007

Welcome to the new look Espacenet.

Numerically, this is actually version 5 but we don't really know what happened to version 4! Although it looks radically different, Espacenet v.5 delivers the same quality document search service as its predecessor. You'll see that the user interface has been completely redesigned, but this is more than just a cosmetic face-lift. We've also taken the chance to improve the lay-out, usability, ergonomics, and navigation, using contemporary design criteria, in consultation with the user community. You'll also notice the new look Espacenet logo.

But new functions and features haven't been forgotten either. In v.5 first release we've included an export-to-Excel function, RSS feeds, breadcrumb navigation, query history, amongst others. These features have been developed and implemented after collecting feedback from you, the users, as always.

For a limited period, v.5 Espacenet will run in parallel with the legacy systems at ep.espacenet.com and v3.espacenet.com, to enable users to become familiar with the new Espacenet v.5. However we expect to turn off the legacy systems in one or two months' time. We recommend that you bookmark the new URLs now. If you're one of the 90% of Espacenet users who access the service directly, <http://worldwide.espacenet.com/> is the URL to remember.

National offices will gradually adopt and customise the new GUI for their own Espacenet instances.

We hope you enjoy searching with the new Espacenet v.5. We thrive on feedback and we'd like to hear yours - tell us what you think about the new Espacenet GUI.

Write to [espacenet@epo.org](mailto:espacenet@epo.org) using the subject GUI

We're waiting to hear from you.

**新しいEspacenetには、新たに "Smart Search" が登場しました。 "Smart Search" は、記載した単語をAND検索しますが、その有用性は未だ不明です。**

**特許(出願)公報の取得や特定の特許(出願)公報の審査状況 (legal status)、他国への出願状況 (Patent family)を調べるには、Number searchを用います。簡単なキーワードでの検索にはQuick searchを、より高度な検索にはAdvanced searchを、欧州特許分類ECLAを用いる検索には、Classification searchを利用します。**

7

# I. Espacenet SmartSearch (1)

**Espacenet Patent search**

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Change country ▾

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Search Result list My patents list (0) Query history Settings Help

**SmartSearch**

Quick search  
Advanced search  
Number search  
Classification search

Maintenance news  
Scheduled maintenance  
News flashes  
Latest updates  
Related links

SmartSearch: i Siemens EP 2007

polypeptide malaria vaccine

Welcome to the new look Espacenet.

Numerically, this is actually version 5 but we don't really know what happened to version 4! Although it looks radically different, Espacenet v.5 delivers the same quality document search service as its predecessor. You'll see that the user interface has been completely redesigned, but this is more than just a cosmetic face-lift. We've also taken the chance to improve the lay-out, usability, ergonomics, and navigation, using contemporary design criteria, in consultation with the user community. You'll also notice the new look Espacenet logo.

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Write to [espacenet@epo.org](mailto:espacenet@epo.org) using the subject GUI

**使用できる単語数は10以下で、単語間は半角空けます。例 "polypeptide malaria vaccine" を記入して、Search。**

8

## I . Espacenet SmartSearch (2)

The screenshot shows the Espacenet Patent search interface. The search results page displays approximately 44 results found in the Worldwide database for the query: (txt = polypeptide and txt = malaria) and txt = vaccine using SmartSearch. A yellow callout box highlights the text: "ヒット数44件。目的のPCT出願のヒットを確認。" (44 hits. Confirm hits of the target PCT application).

The results are sorted by Upload date in descending order. The first four results are:

Result ID	Inventor	Applicant	EC	IPC	Publication info	Priority date
1. MALARIA/VACCINE OF SELF-ASSEMBLING POLYPEPTIDE NANOPARTICLES	LANAR DAVID [US]	US ARMY AS REPRESENTED BY THE SECRETARY OF THE ARMY [US]	A61K39/015 A61K39/085	A61K39/015 A61K39/38	EP2313108 (A2) 2011-04-27	2008-06-30
2. Anti-PI332-DBL region monoclonal antibody capable of restraining invasion of plasmodium falciparum	QUJUN CHEN CHENG DU (+3)	UNIV JILIN		A61K39/015 A61P33/06 C07K14/445 (+2)	CN101863970 (A) 2010-10-20	2010-05-18
3. NOVEL MALARIA/VACCINE	HORII TOSHIHIRO [JP] ISHII KEN [JP] (+1)	UNIV OSAKA [JP] HORII TOSHIHIRO [JP] (+2)	A61K39/015 C07K14/445	A61K39/00 A61K39/38 A61P33/06 (+2)	WO2010126151 (A1) 2010-11-04	2009-05-01
4. POLYPEPTIDES FOR THE PREVENTION OR TREATMENT OF MALARIA	DRUILHE PIERRE [FR] PRIEUR ERIC [FR] (+1)	PASTEUR INSTITUT [FR] DRUILHE PIERRE [FR] (+2)	C07K14/445	A61K39/015 C07K14/445	WO2010097709 (A2) 2010-09-02	2009-02-27

9

## I . Espacenet Number search (1)

The screenshot shows the Espacenet Patent search interface. The SmartSearch page is displayed, and a yellow callout box points to the "Number search" option in the left sidebar, with the text: "“Number search”をクリックします。" (Click "Number search").

The main content area shows a search bar with the text "SmartSearch: Siemens EP 2007" and a "Search" button. Below the search bar, there is a "Welcome to the new look Espacenet." message and a notice about the new look Espacenet v.5.

The notice states: "Numerically, this is actually version 5 but we don't really know what happened to version 4! Although it looks radically different, Espacenet v.5 delivers the same quality document search service as its predecessor. You'll see that the user interface has been completely redesigned, but this is more than just a cosmetic face-lift. We've also taken the chance to improve the lay-out, usability, ergonomics, and navigation, using contemporary design criteria, in consultation with the user community. You'll also notice the new look Espacenet logo. But new functions and features haven't been forgotten either. In v.5 first release we've included an export-to-Excel function, RSS feeds, breadcrumb navigation, query history, amongst others. These features have been developed and implemented after collecting feedback from you, the users, as always. For a limited period, v.5 Espacenet will run in parallel with the legacy systems at ep.espacenet.com and v3.espacenet.com. To enable users to become familiar with the new Espacenet v.5. However we expect to turn off the legacy systems in one or two months' time. We recommend that you bookmark the new URLs now. If you're one of the 90% of Espacenet users who access the service directly: <http://worldwide.espacenet.com/> is the URL to remember. National offices will gradually adopt and customise the new GUI for their own Espacenet instances. We hope you enjoy searching with the new Espacenet v.5. We thrive on feedback and we'd like to hear yours - tell us what you think about the new Espacenet GUI. Write to [espacenet@epo.org](mailto:espacenet@epo.org) using the subject GUI. We're waiting to hear from you.

10

## I . Espacenet Number search (2)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

Deutsch English Français  
Contact  
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Search Result list My patents list (0) Query history Settings Help

SmartSearch  
Quick search  
Advanced search  
**Number search**  
Classification search

Quick help -  
→ What are publication, application, priority and NPL reference numbers?  
Related links +

### Number search

1. Database  
Select the database in which you wish to search: **i**  
Worldwide - full collection of published patent applications from 80+ countries

2. Enter number  
Enter either application, publication or priority number with or without country code prefix, or NPL reference number

Number: **i** WO2008014520  
**US6248320**

Clear Search

公開番号を記入して、SEARCH。  
例;US6248320

11

## I . Espacenet Number search (3)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

Deutsch English Français  
Contact

← About Espacenet Other EPO online services ▾

Search Result list My patents list (0) Query history Settings Help

Search → Results

SmartSearch  
Quick search  
Advanced search  
Number search  
Classification search

Quick help -  
→ Can I subscribe to an RSS feed of the result list?  
→ What does RSS reader do with the result list?  
→ Can I export the result list?  
→ What happens if I click on "Download covers"?  
→ Why is the number of results sometimes approximate?  
→ Why is the list limited to 500 results?  
→ Why could it be that a certain patent document is not displayed in the results list?  
→ Can I sort the result list?  
→ Why do I sometimes get results having a title which is not in English?  
→ What happens if I click on the star icon?  
→ What is an XP document?  
Related links +

### Result list

Select all Compact Export (CSV|XLS) Download Print

1 result found in the Worldwide database for:  
**US6248320** as the publication, application, priority or NPL reference number

1. **HSV strain lacking functional ICP27 and ICP34.5 genes**

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ COFFIN ROBERT STUART [GB] LATCHMAN DAVID SEYMOUR [GB] (+2)	UNIV LONDON [US] UNIV GLASGOW [US]	C07K14/035 C12N15/869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	<b>US6248320</b> (B1) 2001-06-13	1996-07-26

ヒットした公報をクリック。

12

## I . Espacenet Number search (4)

US 6248320 (B1)	<b>Bibliographic data: US 6248320 (B1)</b>
<b>Bibliographic data</b>	★ In my patents list → Report data error
Description	<b>HSV strain lacking functional ICP27 and ICP34.5 genes</b>
Claims	<b>Page bookmark</b> <a href="#">US 6248320 (B1) - HSV strain lacking functional ICP27 and ICP34.5 genes</a>
Mosaics	<b>Publication date:</b> 2001-06-19
Original document	<b>Inventor(s):</b> COFFIN ROBERT STUART [GB]; LATCHMAN DAVID SEYMOUR [GB]; MACLEAN ALASDAIR RODERICK [GB]; BROWN SUZANNE MOIRA [GB] ±
INPADOC legal status	<b>Applicant(s):</b> UNIV LONDON [US]; UNIV GLASGOW [US] ±
<b>Quick help</b> —	<b>Classification:</b> - international: <a href="#">A61K35/30</a> ; <a href="#">A61K35/34</a> ; <a href="#">A61K48/00</a> ; <a href="#">A61P25/00</a> ; <a href="#">A61P25/16</a> ; <a href="#">A61P35/00</a> ; <a href="#">C07K14/035</a> ; <a href="#">C12N1/21</a> ; <a href="#">C12N15/00</a> ; <a href="#">C12N15/869</a> ; <a href="#">C12N7/04</a> ; <a href="#">C12R1/01</a> ; (IPC1-7): <a href="#">A01N63/00</a> ; <a href="#">C12N15/00</a> ; <a href="#">C12N7/00</a> ; <a href="#">C12N7/04</a>
→ <a href="#">What does A1, A2, A3 and B stand for after a publication number?</a>	- European: <a href="#">C07K14/035</a> ; <a href="#">C12N15/869H</a> ; <a href="#">C12N7/04</a>
→ <a href="#">What happens if I click on "In my patents list"?</a>	<b>Application number:</b> <a href="#">US19990230479</a> 19990610
→ <a href="#">What happens if I click on the "Register" button?</a>	<b>Priority number(s):</b> GB19960015794 19960726; WO1997GB02017 19970725
→ <a href="#">Why are some sidebar options deactivated for certain documents?</a>	<a href="#">View INPADOC patent family</a>
→ <a href="#">How can I bookmark this page?</a>	<a href="#">View list of citing documents</a>
→ <a href="#">Why does a list of documents with the heading "Also published as" sometimes appear, and what are these documents?</a>	<b>Also published as:</b> <a href="#">WO 9804726 (A1)</a>
→ <a href="#">What is a cited document?</a>	→ <a href="#">NZ 333901 (A)</a>
→ <a href="#">What are citing documents?</a>	→ <a href="#">JP 2000516809 (T)</a>
→ <a href="#">What information will I find if I click on the link "View all"?</a>	<a href="#">EP 0920523 (A1)</a>
→ <a href="#">Why do I sometimes find the abstract of a corresponding document?</a>	<a href="#">EP 0920523 (B1)</a>
→ <a href="#">What happens if I click on the</a>	→ <a href="#">more</a>

**US6248320の書誌事項が表示されます。"Description", "Claims"をクリックすると、「詳細な説明」、「特許請求範囲」が示されます。**

13

## I . Espacenet Number search (5)

US 6248320 (B1)	<b>Description: US 6248320 (B1)</b>
Bibliographic data	★ In my patents list → Report data error <a href="#">Print</a>
<b>Description</b>	<b>HSV strain lacking functional ICP27 and ICP34.5 genes</b>
Claims	<b>Description of US 6248320 (B1)</b>
Mosaics	<a href="#">Translate this text</a>
Original document	The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.
INPADOC legal status	<b>FIELD OF THE INVENTION</b>
<b>Quick help</b> —	The present invention relates to mutant herpes simplex virus strains which have inactivating mutations rendering them non-pathogenic. It also relates to the use of such mutant HSV strains in gene therapy and in methods of assaying for gene function.
→ <a href="#">What happens if I click on "In my patents list"?</a>	<b>BACKGROUND TO THE INVENTION</b>
→ <a href="#">What happens if I click on the "Register" button?</a>	Herpes simplex virus (HSV) has often been suggested as a suitable vector for the nervous system due to its neurotrophic lifestyle and its ability to remain in neurons for the lifetime of the cell. However wild type HSV is highly pathogenic and must like most viral vectors be disabled in some way. The pathogenic effects of HSV result from lytic infection with the virus and therefore the use of HSV as a vector requires the development of strains carrying mutations that disrupt the lytic cycle whilst allowing the establishment of asymptomatic latent infections. HSV vectors have previously been produced and tested in vivo by the deletion of the essential immediate early (IE) gene ICP4 (Dobson et al., 1990 and Chioocca et al., 1990), which must be complemented for growth in culture. ICP4 is required for transcriptional activation of the viral early and late genes in lytic infection. Thus, a virus lacking this gene can readily establish latent infection of cells but cannot grow lytically.
→ <a href="#">What happens if I click on the button "Translate this text"?</a>	Mutations have also been made in non-essential genes such as the IE gene ICP0, the IE gene ICP6, tyrosine kinase (TK), US5 or VMW65, all of which are required for full pathogenicity in vivo but are dispensable for growth in culture (reviewed by Coffin and Latchman, 1996). These types of mutation provide the added advantage that the deletion need not be complemented for growth in culture which has been shown previously to occasionally result in reversion of the non-pathogenic phenotype to a wild-type phenotype by homologous recombination between the virus and the complementing sequences in the cell-line during growth. However in each of these cases, mutation of the non-essential gene does not completely prevent virus replication since high titre inoculation will overcome the block to replication in vivo.
→ <a href="#">Why is the description sometimes in French or German, or some other language?</a>	
→ <a href="#">How can I search in the text of the description?</a>	
→ <a href="#">Can I download the complete text?</a>	
→ <a href="#">How can I view the chemical structures in the full text?</a>	

**US6248320の"Description"**

14

## I. Espacenet Number search (6)

US 6248320 (B1)	<b>Claims: US 6248320 (B1)</b>
Bibliographic data	★ In my patents list → Report data error
Description	
<b>Claims</b>	<b>US6248320の“Claims”</b>
Mosaics	<b>HSV strain lacking functional ICP27 and ICP34.5 genes</b>
Original document	<b>Claims of US 6248320 (B1)</b>
INPADOC legal status	Translate this text Claims tree
Quick help	The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.
→ What happens if I click on "In my patents list"?	What is claimed is:
→ What happens if I click on the "Register" button?	1. A herpes simplex virus (HSV) which lacks a functional ICP34.5 gene and a functional ICP27 gene.
→ What happens if I click on the button "Translate this text"?	2. An HSV according to claim 1 which is selected from the group consisting of a mutant HSV-1, a mutant HSV-2 and a HSV-1/HSV-2 recombinant mutant.
→ How can I view the claim structure?	3. The HSV according to claim 2 which carries a heterologous gene operably linked to a sequence that controls expression of said heterologous gene in mammalian cells.
→ Why are the claims sometimes in French or German, or some other language?	4. An HSV according to claim 1 wherein the lack of a functional ICP34.5 gene is due to a deletion or insertion within said gene.
→ How can I search in the text of the claims?	5. An HSV according to claim 1 wherein the lack of a functional ICP27 gene is due to a deletion or insertion within said gene.
→ Can I download the complete text of the claims?	6. An HSV according to claim 1 which further lacks a functional second IE gene other than ICP27.
→ How can I view the chemical structures in the full text?	7. An HSV according to claim 6 wherein said IE gene is ICP4.
	8. The HSV according to claim 7 which carries a heterologous gene operably linked to a sequence that controls expression of said heterologous gene in mammalian cells.
	9. A composition comprising an HSV according to claim 8 together with a carrier or diluent.
	10. The HSV according to claim 6 which carries a heterologous gene operably linked to a sequence that controls expression of said heterologous gene in mammalian cells.

15

## I. Espacenet Number search (7)

 <p>Europäisches Patentamt European Patent Office Office européen des brevets</p>	<p><b>Espacenet</b> Patent search</p> <p>Deutsch English Français</p>	<p>Cont... country</p>
<p>← About Espacenet Other EPO online services</p> <p>Search Result list My patents list (0) Query history Settings Help</p> <p>Search → Results → US6248320 (B1)</p>	<p><b>Original document: US 6248320 (B1)</b></p> <p>★ In my patents list → Report data error</p> <p><b>HSV strain lacking functional ICP27 and ICP34.5 genes</b></p> <p>Page 1/9 Abstract Bibliography</p> <p>Maximise Download</p>	<p><b>“Original document”をクリックすると、公報が表示されます。明細書をダウンロードするには、“Download”をクリックし、開いた次の画面で読めた数字を入力します。</b></p>
<p>US 6248320 (B1)</p> <p>Bibliographic data</p> <p>Description</p> <p><b>Claims</b></p> <p>Mosaics</p> <p><b>Original document</b></p> <p>INPADOC legal status</p> <p>Quick help</p> <p>→ What happens if I click on "In my patents list"?</p> <p>→ What happens if I click on the "Register" button?</p> <p>→ How can I maximise the page view?</p> <p>→ How can I download a document?</p>	<p>(12) <b>United States Patent</b> Coffin et al.</p> <p>(10) <b>Patent No.: US 6,248,320 B1</b> (45) <b>Date of Patent: Jun. 19, 2001</b></p> <p>(54) <b>HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES</b></p> <p>(75) Inventors: <b>Robert Stuart Coffin; David Seymour Latchman</b>, both of London; <b>Alasdair Roderick Maclean; Suzanne Moira Brown</b>, both of Glasgow, all of (GB)</p> <p>(73) Assignees: <b>University College London</b>, London; <b>The University Court of the University of Glasgow</b>, Glasgow, both of (GB)</p> <p>(* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.</p> <p>(21) Appl. No.: <b>09/230,479</b></p> <p>(22) PCT Filed: <b>Jul. 25, 1997</b></p> <p>(86) PCT No.: <b>PCT/GB97/02017</b> § 371 Date: <b>Jun. 10, 1999</b></p> <p><b>OTHER PUBLICATIONS</b></p> <p>Jain KR, "Vascular and interstitial barriers to delivery of therapeutic agents in tumors". <i>Cancer and Metastasis Review</i> 9; pp. 253-266, 1990.*</p> <p>Orkin et al., Report and recommendations of the panel to assess the NIH investment in research on gene therapy. pp. 1-20, Dec. 1995.*</p> <p>Breakfield et al., "Herpes simplex virus and gene delivery to neurons". <i>The New Biologist</i>, vol. 3, No. 3: pp. 203-218, Mar. 1991.*</p> <p>Samaniego et al., Functional interactions between Herpes Simplex Virus immediate-early proteins during infection: Gene expression as a consequence of ICP27 and different domains of ICP4. <i>Journal of Virology</i> vol. 69, No. 9 : pp. 5705-5715, Sep. 1995.*</p> <p>Smbert et al., "Herpes Simplex Virus VP16 forms a complex with the virion host shutoff protein vhs". <i>Journal of Virology</i> vol. 68, No. 4: pp. 2339-2346, Apr. 1994.*</p> <p>Verma et al., "Gene therapy-promises, problems, and prospects". <i>Nature</i> vol. 389 : pp. 239-242, Sep. 1997.*</p> <p>Anderson WF, "Human gene therapy". <i>Nature</i> vol. 392: pp.</p>	

16

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HSV strain lacking functional ICP27 and ICP34.5 genes

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**(12) United States Patent**  
Coffin et al.

(10) Patent No.: US 6,248,320 B1  
(45) Date of Patent: Jun. 19, 2001

(54) HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES

(75) Inventors: Robert Stuart Coffin; David Seymour Latchman, both of London; Alasdair Roderick Maclean; Suzanne Moira Brown, both of Glasgow, all of (GB)

(73) Assignees: University College London, London; The University Court of the University of Glasgow, Glasgow, both of (GB)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

OTHER PUBLICATIONS

Jain KR, "Vascular and interstitial barriers to delivery of therapeutic agents in tumors". Cancer and Metastasis Review 9; pp. 253-266, 1990.\*

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Samaniego et al., Functional interactions between Herpes Simplex Virus immediate-early proteins during infection: C...

17

# I. Espacenet Number search (9)

US006248320B1

**(12) United States Patent**  
Coffin et al.

(10) Patent No.: US 6,248,320 B1  
(45) Date of Patent: Jun. 19, 2001

(54) HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES

(75) Inventors: Robert Stuart Coffin; David Seymour Latchman, both of London; Alasdair Roderick Maclean; Suzanne Moira Brown, both of Glasgow, all of (GB)

(73) Assignees: University College London, London; The University Court of the University of Glasgow, Glasgow, both of (GB)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/230,479  
(22) PCT Filed: Jul. 25, 1997  
(86) PCT No.: PCT/GB97/02017  
§ 371 Date: Jun. 10, 1999  
§ 102(e) Date: Jun. 10, 1999  
(87) PCT Pub. No.: WO98/04726  
PCT Pub. Date: Feb. 5, 1998  
(30) Foreign Application Priority Data  
Jul. 26, 1996 (GB) ..... 9615794  
(51) Int. Cl.<sup>7</sup> ..... A01N 63/00; C12N 7/00; C12N 7/04; C12N 15/00  
(52) U.S. Cl. .... 424/93.2; 424/93.3; 435/235.1; 435/236; 435/320.1  
(58) Field of Search ..... 424/93.6; 435/320.1; 514/44  
(56) References Cited  
U.S. PATENT DOCUMENTS

OTHER PUBLICATIONS

Jain KR, "Vascular and interstitial barriers to delivery of therapeutic agents in tumors". Cancer and Metastasis Review 9; pp. 253-266, 1990.\*

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Verma et al., "Gene therapy—promises, problems, and prospects". Nature vol. 389; pp. 239-242, Sep. 1997.\*

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18

## I . Espacenet Number search (10)

Search → Results → US6248320 (B1)

**INPADOC legal status: US 6248320 (B1)**

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**HSV strain lacking functional ICP27 and ICP34.5 genes**

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Legal status of US6248320 (B1) 2001-06-19:

US	F	23047999 A (Patent of invention)
PRS Date:		1999/06/10
PRS Code:		AS
Code Expl:		ASSIGNMENT
NEW OWNER:		UNIVERSITY COLLEGE LONDON, UNITED KINGDOM
FURTHER INFORMATION:	ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:COFFIN, ROBERT S.;LATCHMAN, DAVID S.;MACLEAN, ALASDAIR R.;AND OTHERS;REEL/FRAME:010080/0187;SIGNING DATES FROM 19990507 TO 19990514	
PRS Date:		1999/06/10
PRS Code:		AS
Code Expl:		ASSIGNMENT
NEW OWNER:		GLASGOW, UNIVERSITY OF, UNIVERSITY COURT OF THE, T
FURTHER INFORMATION:	ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:COFFIN, ROBERT S.;LATCHMAN, DAVID S.;MACLEAN, ALASDAIR R.;AND OTHERS;REEL/FRAME:010080/0187;SIGNING DATES FROM	

**Callout text:** “INPADOC legal status”をクリックすると、US6248320の法的状況と譲渡情報が示されます。米国特許の法的状況と譲渡情報のチェックには、米国特許庁の“PAIR”や“AOTW-P”でも調べることをお勧めします。

19

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**Bibliographic data: US 6248320 (B1)**

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**HSV strain lacking functional ICP27 and ICP34.5 genes**

Page bookmark US 6248320 (B1) - HSV strain lacking functional ICP27 and ICP34.5 genes

Publication date: 2001-06-19

Inventor(s): COFFIN ROBERT STUART [GB]; LATCHMAN, DAVID S.; MACLEAN ALASDAIR RODERICK [GB]; BROWN SUZANNE MOIRA [GB] ±

Applicant(s): UNIV LONDON [US]; UNIV GLASGOW [UK]

Classification: - International: A61K35/30; A61K35/50; A61K48/00; A61P25/00; A61P25/16; A61P35/00; C07K14/035; C12N1/21; C12N1/30; C12N1/31; C12N1/33; C12N1/35; C12N1/36; C12N1/37; C12N1/38; C12N1/39; C12N1/40; C12N1/41; C12N1/42; C12N1/43; C12N1/44; C12N1/45; C12N1/46; C12N1/47; C12N1/48; C12N1/49; C12N1/50; C12N1/51; C12N1/52; C12N1/53; C12N1/54; C12N1/55; C12N1/56; C12N1/57; C12N1/58; C12N1/59; C12N1/60; C12N1/61; C12N1/62; C12N1/63; C12N1/64; C12N1/65; C12N1/66; C12N1/67; C12N1/68; C12N1/69; C12N1/70; C12N1/71; C12N1/72; C12N1/73; C12N1/74; C12N1/75; C12N1/76; C12N1/77; C12N1/78; C12N1/79; C12N1/80; C12N1/81; C12N1/82; C12N1/83; C12N1/84; C12N1/85; C12N1/86; C12N1/87; C12N1/88; C12N1/89; C12N1/90; C12N1/91; C12N1/92; C12N1/93; C12N1/94; C12N1/95; C12N1/96; C12N1/97; C12N1/98; C12N1/99; C12N1/100; C12N1/101; C12N1/102; C12N1/103; C12N1/104; C12N1/105; C12N1/106; C12N1/107; C12N1/108; C12N1/109; C12N1/110; C12N1/111; C12N1/112; C12N1/113; C12N1/114; C12N1/115; C12N1/116; C12N1/117; C12N1/118; 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C12N1/1111; C12N1/1112; C12N1/1113; C12N1/1114; C12N1/1115; C12N1/1116; C12N1/1117; C12N1/1118; C12N1/1119; C12N1/1120; C12N1/1121; C12N1/1122; C12

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10 application(s) for: US6248320 (B1)

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Item	Inventor	Applicant	EC	IPC	Publication info	Priority date
1. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Coffin Robert Stuart UCL Medic Cleveland Street [GB] (+4)	Univ London [GB] Univ Glasgow [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AT251672 (T) 2003-10-15	1996-07-26
2. HSV strain lacking functional ICP27 and ICP34.5 Genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Univ London Univ Glasgow	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU726645 (B2) 2000-11-16	1996-07-26
3. Hsv strain lacking functional icp27 and icp34.5 genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Medical Res Council	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU3700797 (A) 1998-02-20	1996-07-26
4. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Latchman David Seymour [GB] Brown Suzanne Moira [GB] (+2)	Medical Res Council [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+15)	CA2262010 (A1) 1998-02-05 CA2262010 (C) 2010-08-31	1996-07-26

21

# I. Espacenet Number search (13)

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Item	Inventor	Applicant	EC	IPC	Publication info	Priority date
1. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Coffin Robert Stuart UCL Medic Cleveland Street [GB] (+4)	Univ London [GB] Univ Glasgow [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AT251672 (T) 2003-10-15	1996-07-26
2. HSV strain lacking functional ICP27 and ICP34.5 Genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Univ London Univ Glasgow	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU726645 (B2) 2000-11-16	1996-07-26
3. Hsv strain lacking functional icp27 and icp34.5 genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Medical Res Council	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU3700797 (A) 1998-02-20	1996-07-26
4. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Latchman David Seymour [GB] Brown Suzanne Moira [GB] (+2)	Medical Res Council [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+15)	CA2262010 (A1) 1998-02-05 CA2262010 (C) 2010-08-31	1996-07-26

22

# I . Espacenet Number search (14)

Title	Publication number	Publication date	Inventor(s)	Applicant(s)	International classification	European classification	Application number	Date of application	Priority number(s)	PATENTS CITED IN THE SEARCH	LITERATURE CITED IN THE SEARCH	PATENTS CITED DURING EXAMINATION	LITERATURE CITED DURING EXAMINATION
HSV STRAIN LACKING FUNCTIONAL	AT251672 (T)	2003/10/15	COFFIN ROBERT STUART	UNIV LONDON [GB], UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	AT19970933 762T	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV strain lacking functional	AU726645 (B2)	2000/11/16	COFFIN ROBERT STUART	UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	AU19970037 007	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
Hsv strain lacking functional	AU3700797 (A)	1998/2/20	COFFIN ROBERT STUART	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	AU19970037 007D	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV STRAIN LACKING FUNCTIONAL	CA2262010 (A1)	1998/2/5	LATCHMAN DAVID SEYMOUR	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	CA19972262 010	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV STRAIN LACKING FUNCTIONAL	DE69725452 (T2)	2004/8/19	COFFIN ROBERT STUART	UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	DE19976025 452T	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV STRAIN LACKING FUNCTIONAL	EP0920523 (A1)	1999/6/9	COFFIN ROBERT STUART	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	EP19970933 762	19970725	WO1997GB0 2017; 19970726; WO9204050 (A1)	EP0453242 (A1); WO9204050 (A1)	XP00025590 7		
HSV STRAIN LACKING FUNCTIONAL	JP20005168 09 (T)	2000/12/19			C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	JP19980508 602T	19970725	WO1997GB0 2017; 19970726; WO9204050 (A1)				
Herpes simplex virus (HSV)	NZ333901 (A)	2001/5/25	COFFIN ROBERT STUART	UNIV LONDON; UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	NZ19970333 901	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV strain lacking functional	US6248320 (B1)	2001/6/19	COFFIN ROBERT STUART	UNIV LONDON [US], UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	US19990230 479	19990610	GB19960015 794; 19960726; WO9204050 (A1)	US5328688 (A)			
HSV STRAIN LACKING FUNCTIONAL	WO9804726 (A1)	1998/2/5	COFFIN ROBERT STUART	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	WO1997GB0 2017	19970725	GB19960015 794; 19960726; WO9204050 (A1)	EP0453242 (A1); WO9204050 (A1)	XP00025590 7		

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**INPADOC legal status: EP 0920523 (A1)**

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**HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES**

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Legal status of EP0920523 (A1) 1999-06-09; EP0920523 (B1) 2003-10-08:

EP	F	97933762 A (Patent of invention)
PRS Date :		1999/06/09
PRS Code :		AK
Code Expl.:		+ DESIGNATED CONTRACTING STATES:
KD OF CORRESP. PAT.:		A1
DESIGNATED COUNTR.:		AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
PRS Date :		1999/06/09
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Code Expl.:		+ REQUEST FOR EXAMINATION FILED
EFFECTIVE DATE :		19990223
PRS Date :		1999/11/17
PRS Code :		RAP1
Code Expl.:		TRANSFER OF RIGHTS OF AN EP APPLICATION
NEW OWNER :		UNIVERSITY COLLEGE, LONDON
PRS Date :		1999/11/17
PRS Code :		RAP1

US6248320のEP特許出願をクリックし、その“INPADOC legal status”をクリックすると、欧州特許の法的状況が確認できます。

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Search term(s): i hair  
("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and

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26

## I . Espacenet Quick search (3)

ウイルスの種類と用途を絞った検索で、61件がヒットしました。重複を避けるために、1つのPatent familyに表示される公報は1件に限られています。Patent familyを表示させるには、各公報の“Also published as” or “View INPADOC patent family”を参照します。検索は10万件まで可能ですが、リストが表示されるのは500件までで、かつ1画面に15件づつです。

Approximately 61 results found in the Worldwide database for: (“herpes simplex” or HSV) and (gene or recombin\* or mutant or mutata) and (nervous or cancer) in the title or abstract

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
MACLEAN ALASDAIR RODERICK [GB] BROWN SUSANNE MOIRA [GB] (+2)	CRUSADE LAB LTD [GB] WISTAR INST [US]	A61K35/76 C12N7/00	A61K35/76 A61P35/00 A61P35/04 (+5)	US2010172872 (A1) 2010-07-08	1994-07-29
CONNER JOE [GB] BROWN SUSANNE YU LEI (+1)	CRUSADE LAB LTD [GB] RUIFA HAN YU LEI (+1)	C07K14/47A1A C12N15/869	A61K39/245 C07K14/47 C12N15/869	GB2448721 (A) 2008-08-20 WO2008141151 (A3) 2009-08-27	2007-02-16

27

## I . Espacenet Quick search (4)

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Approximately 57 results found in the Worldwide database for: (“herpes simplex” or HSV) and (gene or recombin\* or mutant or mutata) and (nervous or cancer) in the title or abstract

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
JUNG JAE HUN [KR] KIM CHUL WOO [KR] (+1)	KIM CHUL WOO [KR]	A61K48/00 C12N15/79	A61K48/00 C12N15/79 (IPC: 7)A61K48/00	KR20030008545 (A) 2003-01-29	2001-07-18
VALERIE KRISTOFFER C [US]	VALERIE KRISTOFFER C	A61K31/522 C12N9/12B1B21	A61K31/522 C12N9/12 A61K48/00 (+2)	US2001046491 (A1) 2001-11-29	2000-03-23
COFFIN ROBERT STUART [GB]	BIOVEK LTD [GB] COFFIN ROBERT STUART [GB]	A61K35/76 C12N15/869H (+1)	A61K31/7105 A61K35/76 A61K38/00 (+18)	WO0153506 (A2) 2001-07-26 WO0153506 (A3) 2002-05-23	2000-01-21
COFFIN ROBERT	BIOVEK LTD [GB]	C12N15/869H	A61K35/76	MXPA00011346 (A)	1998-05-20

28

# I . Espacenet Quick search (5)

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Approximately 57 results found in the Worldwide database for:  
("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Sort by Upload date Sort order Descending Sort

1. Treatment of Cancer Using HSV Mutant  
★ Publication info: US2010172872 (A1) 2010-07-08

2. Bi-target treatment for bladder cancer by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene HSV-TK  
★ Publication info: CN101810865 (A) 2010-08-25

3. SYNTHETIC HERPES SIMPLEX VIRUSES TYPE-1 FOR TREATMENT OF CANCERS  
★ Publication info: WO2008141151 (A2) 2008-11-20

4. Herpes Simplex Virus expressing an HSC-1 receptor

29

# I . Espacenet Quick search (6)

	A	B	C	D	E	F	G	H	I	J	K	L
1	Title	Publication number	Publication date	Inventor(s)	Applicant(s)	International classification	European classification	Application number	Date of application	Priority number(s)	PATENTS CITED IN	LITERATURE CITED IN
11	Method For Constructing Recombinant Herpes Mutant herpes simplex viruses and	US20040663094 (A1)	2004/4/1	COFFIN ROBERT SCHWARTZ	BIOMEX LTD (GB)	C12N1 5/869 ; C12N1 7/03 ; C12N1 5/09	C12N1 5/869 H	US20030668164	20030824	US20030668164		
12	An herpes simplex virus complex	GB2386895 (A)	2003/10/1	BROWN SUSANNE MORLA (GB)	CRUSADE LAB LTD (GB)	C12N1 5/09 ; A61K35/76 ; A61K42/48	C07K1 4/006	GB20030003188	20030212	GB20030003285	GB2374873 (A)	
13	ADENOVIRUS VECTOR WITH THE ENVELOPE	KR20040002322 (A)	2004/1/7	KIM YOUNG TAE; SONG KIMILSONG	KIM YOUNG TAE; SONG KIMILSONG	C12N1 5/861 ; C12N1 5/09 ; A61K48/00 ; A61K35/76 ; C12N1 7/03 ; C12N1 5/09		KR2002000076				
14	Methods for viral oncoapoptosis in cancer therapy	US2002187170 (A1)	2002/12/12	BLAND JOHN A (US)	SINAI SCHOOL OF MEDICINE	A61K48/00 ; C12N1 7/03 ; C07K1 4/006	A61K48/000 ; C07K1 4/006	US200201655				
15	Herpes simplex virus type 1 (HSV-1)-based oncoapoptosis	US2002098170 (A)	2002/7/25	WECHSLER STEVEN L (US)	WECHSLER STEVEN L ; MEDICAL RESEARCH	A61P35/00 ; C07K1 4/006 ; C12N7/04 ; C12N1 5/09	C07K1 4/006 ; C12N7/04 ; C12N1 5/09	US200100481				
16	METHOD FOR GENE THERAPY OF CANCER USING CO-RECEPTOR	KR20030008545 (A)	2003/1/29	JUNG JAE HUN [KR]; KIM CHUL WOO [KR]	KIM CHUL WOO [KR]	A61K48/00 ; C12N1 5/79 ; A61K42/48		KR20010043237		20010043237		
17	Tumor radiosensitization with recombinant Herpesvirus STRAINS	US2001046491 (A1)	2001/11/29	VALERIE KRISTOFFE (FR)	VALERIE KRISTOFFE (FR)	A61K31/522 ; C12N8/12 ; A61K48/00 ; C12N1 7/03 ; A61K35/76 ; C12N1 5/09	A61K31/522 ; C12N8/12 ; A61K48/00 ; C12N1 7/03 ; A61K35/76 ; C12N1 5/09	US200103938	20010323	US200103938		
18	MUTANT HERPES SIMPLEX VIRUSES INDUCE THERAPY OF A medication comprising a nucleoside analogue	WO0153506 (A2)	2001/7/26	COFFIN ROBERT SCHWARTZ	BIOMEX LTD (GB)	C12N1 7/03 ; A61K31/710 ; A61K48/00 ; A61K35/76 ; C12N1 5/09	C12N1 7/03 ; A61K31/710 ; A61K48/00 ; A61K35/76 ; C12N1 5/09	20010129	20010129	20010129	US5876923 (A)	XP002090032
19	MUTANT HERPES SIMPLEX VIRUSES INDUCE THERAPY OF A medication comprising a nucleoside analogue	MXPA00011345 (A)	2003/5/19	COFFIN ROBERT SCHWARTZ	BIOMEX LTD (GB)	A61K31/710 ; A61K48/00 ; A61K35/76 ; C12N1 5/09	C12N1 5/869 H	MX2000PA11346	20001117	GB1998010904		
20	RETROVIRUS VECTOR COMPOSING TISSUE ENZYME /PRODRUG SYSTEM OF CD5-EGFP AND HSV-1	GB2397063 (A)	2004/7/14	LOWENSTEIN FREDRO (US)	CEDARS SINAI MEDICAL CENTER	A61K48/00 ; C12N1 5/79 ; A61K35/76 ; C12N1 5/09	A61K48/000 ; C12N1 5/79 ; A61K35/76 ; C12N1 5/09	GB20040006539	20001023	GB20000025890	WO9509654 (A)	MO9507722
21	Method of cancer using HSV mutant	ALU4872039 (A)	2003/6/8	KIM HWAN MUK [KR]; KIM JAE HO [US]; LEW JUNG WUK [US]	ALUMINUM MEDICAL RES COUNCIL	C12N1 5/867 ; C12N1 5/09 ; A61K39/245 ; A61K39/245 ; A61K39/245		KR20000040545	20000714	KR20000040545		
22	HSV strain lacking functional ICP27 and ICP35 genes	KR20010064682 (A)	2001/7/11	GILBERT JEFFREY (US); KIM JAE HO [US]; LEW JUNG WUK [US]	KIM JAE HO [US]; LEW JUNG WUK [US]	C12N7/00 ; C12N7/00 ; A61K39/245 ; A61K39/245 ; A61K39/245	C12N7/00 ; C12N7/00 ; A61K39/245 ; A61K39/245 ; A61K39/245	KR20000037582	20000701	KR20000037582		
23	Treatment of cancer using HSV mutant	US6340673 (B1)	2002/1/22	ROIZMAN BERNARD (US); CHU WU XIAOBING	ARCH DEV CORP [US]	A61K39/245 ; A61K39/245 ; A61K39/245	GOI N33/50 D2E ; A61K39/245 ; A61K39/245	US19990283471	19990401	US19990283471		
24	Construction and use of plasmid type	CN1248627 (A)	2000/3/29	NAT KEY LAB OF	NAT KEY LAB OF	C12N7/01 ; C12N1 5/64 ; A61K39/245 ; A61K39/245 ; A61K39/245		CN19981020032	19980924	CN19981020032		
25	HSV strain lacking functional ICP27 and ICP35 genes	US6248320 (B1)	2001/6/19	COFFIN ROBERT SCHWARTZ	UNIV LONDON	C12N1 5/00 ; A61K35/76 ; C12N1 5/09	C07K1 4/006 ; C12N7/04 ; C12N1 5/09	US19990230479	19990610	GB19960015794	US5328688 (A)	

30件をCSVでダウンロードしExcel形式で整理したデータの一部です。US6248320もヒットしました。要約はダウンロードされません。

30

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“Select all”をクリックして、“Download covers”をクリックすると、各公報の最初のページがPDFでダウンロードできるので、要約を入手出来ますが、これも表示ページ毎にダウンロードする必要があります。

一度内容を確認すると色が変わって履歴が残ります。また、ヒットした検索語がハイライトされています。

Result list

Approximately 57 results found in the Worldwide database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Sort by Upload date Sort order Descending

Publication info:	Publication date:
1. Treatment of <b>Cancer</b> Using <b>HSV</b> /Mutant	US2010172872 (A1) 2010-07-08
2. Bi-target treatment for bladder <b>cancer</b> by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide <b>gene</b> <b>HSV-TK</b>	CN101810865 (A) 2010-08-25
3. <b>SYNTHETIC HERPES SIMPLEX VIRUSES TYPE-1 FOR TREATMENT OF CANCERS</b>	WO2008141151 (A2) 2008-11-20
4. Herpes Simplex Virus comprising an <b>ING4</b> polypeptide	GB2446721 (A) 2008-08-20
5. TREATMENT OF NON-NEURONAL <b>CANCER</b> USING <b>HSV-1</b> VARIANTS	US2007292394 (A1) 2007-12-20

31

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Publication info:	Publication date:
1. Treatment of <b>Cancer</b> Using <b>HSV</b> /Mutant	US2010172872 (A1) 2010-07-08
2. Bi-target treatment for bladder <b>cancer</b> by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide <b>gene</b> <b>HSV-TK</b>	CN101810865 (A) 2010-08-25
3. <b>SYNTHETIC HERPES SIMPLEX VIRUSES TYPE-1 FOR TREATMENT OF CANCERS</b>	WO2008141151 (A2) 2008-11-20
4. Herpes Simplex Virus comprising an <b>ING4</b> polypeptide	GB2446721 (A) 2008-08-20
5. TREATMENT OF NON-NEURONAL <b>CANCER</b> USING <b>HSV-1</b> VARIANTS	US2007292394 (A1) 2007-12-20

32

# I . Espacenet Quick search (9)

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US2010172872 (A1)	Treatment of Cancer Using HSV Mutant	2
CN101810865 (A)	Bi-target treatment for bladder cancer...	3
WO2008141151 (A2)	SYNTHETIC HERPES SIMPLEX VIRUSES TYPE...	4
GB2446721 (A)	Herpes Simplex Virus comprising an IN...	5
US2007292394 (A1)	TREATMENT OF NON-NEURONAL CANCER USING...	6
KR100829450 (B1)	RECOMBINANT VECTOR EXPRESSING SHRNA F...	7
JP2006335763 (A)	METHOD AND COMPOSITION FOR GENE, TUMOR...	8
WO2007002373 (A2)	USE OF MUTANT HERPES SIMPLEX VIRUS-2 ...	9
US2005226850 (A1)	Treatment of non-neuronal cancer using...	10
US2007196336 (A1)	Method For Constructing Recombinant H...	11
US2004063094 (A1)	Mutant herpes simplex viruses and use...	12
GB2386895 (A)	An herpes simplex virus complex	13
KR20040002322 (A)	ADENOVIRUS VECTOR WITH TELOMERASE PRO...	14
US2002187126 (A1)	Methods for viral oncoapoptosis in ca...	15
US2002098170 (A1)	Herpes simplex virus type 1 ( HSV-1)-...	16
KR20030008545 (A)	METHOD FOR GENE THERAPY OF CANCER USI...	17
US2001046491 (A1)	Tumor radiosensitization with mutant ...	18
WO0153506 (A2)	VIRUS STRAINS	19
MXPA00011346 (A)	MUTANT HERPES SIMPLEX VIRUSES AND USE...	20
GB2397063 (A)	A medicament comprising a cytotoxic p...	21

しよりの公報をクリックすると、その公報のフロントページが開きます。

33

# I . Espacenet Quick search (10)

要約を読むことができます。

US 20100172872A1

(19) **United States**  
(12) **Patent Application Publication** (10) **Pub. No.: US 2010/0172872 A1**  
**MacLean et al.** (43) **Pub. Date: Jul. 8, 2010**

(54) **TREATMENT OF CANCER USING HSV MUTANT**

(75) **Inventors:** Alasdair Roderick MacLean, Glasgow (GB); Susanne Moira Brown, Glasgow (GB); Nigel William Fraser, Philadelphia, PA (US); Bruce Paul Randazzo, Philadelphia, PA (US)

(63) Continuation of application No. 11/152,591, filed on Jun. 13, 2005, now Pat. No. 7,674,468, which is a continuation of application No. 08/776,350, filed on Apr. 18, 1997, now abandoned, filed as application No. PCT/GB95/01791 on Jul. 28, 1995.

(30) **Foreign Application Priority Data**  
Jul. 29, 1994 (GB) ..... 9415320.2

(51) **Publication Classification**  
**Int. Cl.**  
A61K 35/76 (2006.01)  
A61P 35/00 (2006.01)  
A61P 35/04 (2006.01)  
**U.S. Cl.** ..... 424/93.2

(57) **ABSTRACT**  
Use as an anti-cancer agent of a mutant herpes simplex virus wherein the mutant virus comprises a modification in the  $\gamma$ 34.5 gene in the long repeat region ( $R_2$ ) such that the  $\gamma$ 34.5 gene is a non-functional, manufacture of medicaments and methods of testing cancer in mammals employing HSV mutant.

(73) **Assignees:** CRUSADE LABORATORIES LIMITED, Glasgow (GB); THE WISTAR INSTITUTE, Philadelphia, PA (US)

(21) **Appl. No.:** 12/692,347

(22) **Filed:** Jan. 22, 2010

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34

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(検索例)

mutation:9620 → mutat\*:19815

35

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Keyword(s) in title or abstract: **i** hair

Publication number: **i** WO2008014520

Application number: **i** DE19971031696

Priority number: **i** WO1995US15925

36

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Publication number:

Application number:

Priority number:

Publication date:

Applicant(s):

Inventor(s):

European Classification (ECLA):

International Patent Classification (IPC):

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ECLA code 検索

IPC code検索

37

## I. Espacenet Advanced search (3)

Quick search

**Advanced search**

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Classification search

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→How do I enter publication, application, priority and NPL reference numbers?

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→What are the admissible entries for a date range search?

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**2. Search terms**  
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Keyword(s) in title or abstract:

Publication number:

Application number:

Priority number:

Publication date:

Applicant(s):

Inventor(s):

European Classification (ECLA):

International Patent Classification (IPC):

検索例 Quick searchと同じキーワード  
 (“herpes simplex” or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) を入力してsearch。

38

# I . Espacenet Advanced search (4)

Search → Results page 1

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Sort by: Upload date | Sort order: Descending

1. Treatment of Cancer Using HSV Mutant
<p>★ Inventor: MACLEAN ALASDAIR Roderick [GB], BROWN SUSANNE MOIRA [GB] (+2)</p> <p>Applicant: CRUSADE LAB LTD [GB], WISTAR INST [US]</p> <p>EC: A81K35/76 C12N7/00</p> <p>IPC: A81K35/76, A81P35/00, A81P35/04 (+5)</p> <p>Publication info: US2010172872 (A1), 2010-07-08</p> <p>Priority date: 1994-07-29</p>
2. Bi-target treatment for bladder cancer by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene HSV TK
<p>★ Inventor: RUIFA HAN</p> <p>Applicant: RUIFA HAN YU LEI (+1)</p> <p>EC: A81K35/76 C07K14/035 (+1)</p> <p>IPC: A81K35/76, A81K48/00, A81P35/00</p> <p>Publication info: CN101810865 (A), 2010-08-25</p> <p>Priority date: 2009-09-27</p>
3. SYNTHETIC HERPES SIMPLEX VIRUSES TYPE-1 FOR TREATMENT OF CANCERS
<p>★ Inventor: KOUSOULAS KONSTANTIN G [US]</p> <p>Applicant: UNIV LOUISIANA STATE [US], KOUSOULAS KONSTANTIN G [US]</p> <p>EC: A81K35/76 C07K14/035 (+1)</p> <p>IPC: C12N7/00</p> <p>Publication info: WO2008141151 (A2), 2008-11-20; WO2008141151 (A3), 2009-08-27</p> <p>Priority date: 2007-05-09</p>

39

# I . Espacenet Advanced search (5)

**2. Search terms**

Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** plastic and bicycle

Keyword(s) in title or abstract: **i** hair  
 ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and

Publication number: **i** WO2008014520

Application number: **i** DE19971031696

Priority number: **i** WO1995US15925

Publication date: **i** 2009:2010 yyyymmdd

Applicant(s): **i** Institut Pasteur

Inventor(s): **i**

European Classification (ECLA): **i**

International Patent Classification (IPC): **i** H03M1/12

Clear Search

同じキーワードでの検索を公報公開期間を指定して検索。  
 例 2009:2010  
 以前は、20090101:20101122が可能でしたが、現在は月日を入力するとエラーに成りやすいのでご注意ください。

40

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Sort by:    Sort order:   

1. **Treatment of Cancer Using HSV Mutant**

★ <b>Inventor:</b> MACLEAN ALASDAIR RODERICK [GB] BROWN SUSANNE MOIRA [GB] (+2)	<b>Applicant:</b> CRUSADE LAB LTD [GB] WISTAR INST [US]	<b>EC:</b> <a href="#">A61K35/76</a> <a href="#">C12N7/00</a>	<b>IPC:</b> A61K35/76 A61P35/00 A61P35/04 (+5)	<b>Publication info:</b> US2010172872 (A1) <b>2010</b> -07-08	<b>Priority date:</b> 1994-07-29
---	---	---	---	---	-------------------------------------

2. **Bi-target treatment for bladder cancer by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene HSV-TK**

★ <b>Inventor:</b> RUIFA HAN	<b>Applicant:</b> RUIFA HAN YU LEI (+1)	<b>EC:</b>	<b>IPC:</b> A61K35/76 A61K48/00 A61P35/00	<b>Publication info:</b> CN101810865 (A) <b>2010</b> -08-25	<b>Priority date:</b> 2009-09-27
---------------------------------	---	------------	--	---	-------------------------------------

3. **Synthetic Herpes Simplex Viruses Type-1 for Treatment of Cancers**

★ <b>Inventor:</b> KOUSOULAS KONSTANTIN G [US]	<b>Applicant:</b>	<b>EC:</b> <a href="#">A61K35/76</a> <a href="#">C07K14/035</a> (+1)	<b>IPC:</b> A61K35/76 A61P35/00 C12N15/63 (+1)	<b>Publication info:</b> US2010297085 (A1) <b>2010</b> -11-25	<b>Priority date:</b> 2007-05-09
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4. **Use of Mutant Herpes Simplex Virus-2 for Cancer Therapy**

期間を限定したため、4件がヒットしました。同じ検索式で、検索期間を変えて、新しい特許のみを定期的に検索することが可能です。

41

## I. Espacenet Advanced search (7)

SmartSearch	<b>Advanced search</b>
Quick search	
<b>Advanced search</b>	
Number search	
Classification search	
<b>Quick help</b> -	
→ How many terms can I enter per field?	
→ Can I search with a combination of words?	
→ Can I use truncation or wildcards?	
→ How do I enter publication, application, priority and NPL reference numbers?	
→ What is the difference between the IPC and the ECLA?	
→ What are the valid date formats?	
→ What are the admissible entries for a date range search?	
<b>Related links</b> +	

公開日  
20090101:20101122  
ではエラーとなって検索出来なかったのに、  
20090215:20110509  
では検索することが出来ました。理由は不明です。システムが未だ不安定なようです。

<b>1. Database</b>	
Select the database in which you wish to search: <b>i</b>	Worldwide - full collection of published patent applications from 80+ countries
<b>2. Search terms</b>	
Enter keywords in English - ctrl-enter expands the field you are in	
Keyword(s) in title: <b>i</b>	plastic and bicycle
Keyword(s) in title or abstract: <b>i</b>	hair
( "herpes simplex" or HSV) and (gene or recombin* or mutant or mutat*) and	
Publication number: <b>i</b>	WO2008014520
Application number: <b>i</b>	DE19971031696
Priority number: <b>i</b>	WO1995US15925
Publication date: <b>i</b>	yyyymmdd
20090215:20110509	
Applicant(s): <b>i</b>	Institut Pasteur
Inventor(s): <b>i</b>	Smith
European Classification (ECLA): <b>i</b>	F03G7/10
International Patent Classification (IPC): <b>i</b>	H03M1/12
<input type="button" value="Clear"/> <input type="button" value="Search"/>	

42

# I. Espacenet Advanced search (8)

SmartSearch

Quick search

Advanced search

Number search

Classification search

---

Quick help

→ Can I subscribe to an RSS feed of the result list?

→ What does RSS reader do with the result list?

→ Can I export the result list?

→ What happens if I click on "Download covers"?

→ Why is the number of results sometimes approximate?

→ Why is the list limited to 500 results?

→ Why could it be that a certain patent document is not displayed in the results list?

→ Can I sort the result list?

→ Why do I sometimes get results having a title which is not in English?

→ What happens if I click on the star icon?

→ What is an XP document?

---

Related links

### Result list

Select all    Compact   [Export \(CSV|XLS\)](#)   [Download covers \(0\)](#)   [Print](#)

4 results found in the Worldwide database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract AND 20090215:20110509 as the publication date

Sort by:    Sort order:

- 1. Treatment of Cancer Using HSV Mutant
 

<p>★ <b>Inventor:</b> MACLEAN ALASDAIR RODERICK [GB] BROWN SUSANNE MOIRA [GB] (+2)</p>	<p><b>Applicant:</b> CRUSADE LAB LTD WISTAR INST [US]</p>		
--	---	--	--
- 2. Bi-target treatment for bladder cancer by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene HSV-TK
 

<p>★ <b>Inventor:</b> RUIFA HAN</p>	<p><b>Applicant:</b> RUIFA HAN YU LEI (+1)</p>	<p><b>EC:</b></p>	<p><b>IPC:</b> A61K35/76 A61K48/00 A61P35/00</p>	<p><b>Publication info:</b> CN101810865 (A) 2010-08-25</p>	<p><b>Priority date:</b> 2009-09-27</p>
---	--	-------------------	--	--	---
- 3. Synthetic Herpes Simplex Viruses Type 1 for Treatment of Cancers
 

<p>★ <b>Inventor:</b> KOUSOULAS KONSTANTIN G [US]</p>	<p><b>Applicant:</b></p>	<p><b>EC:</b> A61K35/76 C07K14/035 (+1)</p>	<p><b>IPC:</b> A61K35/76 A61P35/00 C12N15/63 (+1)</p>	<p><b>Publication info:</b> US2010297085 (A1) 2010-11-25</p>	<p><b>Priority date:</b> 2007-05-09</p>
---	--------------------------	---	---	--	---
- 4. Use of Mutant Herpes Simplex Virus-2 for Cancer Therapy
 

<p>★ <b>Inventor:</b> ZHANG XIAOLIU [US] WANG FULI [US]</p>	<p><b>Applicant:</b> BAYLOR COLLEGE MEDICINE [US]</p>	<p><b>EC:</b> A61K35/76 C07K14/035 (+1)</p>	<p><b>IPC:</b> C12N15/63 C12N7/04 (+1)</p>	<p><b>Publication info:</b> US2009215147 (A1) 2009-09-27</p>	<p><b>Priority date:</b> 2005-06-23</p>
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公開日20090215:20110509の検索結果です。4件がヒットしました。特定の公開日から期間限定で調査できると、定期的に新しい特許のみを検索する際に、前の検索日から検索すれば良いので便利です。

# I. Espacenet Advanced search (9)

Search

Result list

My patents list (0)

Query history

Settings

Help

---

SmartSearch

Quick search

Advanced search

Number search

Classification search

---

Quick help

→ How many terms can I enter per field?

→ Can I search with a combination of words?

→ Can I use truncation or wildcards?

→ How do I enter publication, application, priority and NPL reference numbers?

→ What is the difference between the IPC and the ECLA?

→ What are the valid date formats?

→ What are the admissible entries for a date range search?

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Related links

### Advanced search

1. Database

Select the database in which you wish to search:

EP - complete collection including full text of European published applications

2. Search terms

Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title:  e.g. motor

Keyword(s) in title or abstract:  e.g. hair

Keyword(s) in full text:  e.g. hair

("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

Publication number:  e.g. EP1883031

Application number:  e.g. EP20070010825

Priority number:  e.g. DE20021036409

Publication date:  e.g. 20070919

Applicant(s):  e.g. IBM

Inventor(s):  e.g. Siemens

International Patent Classification (IPC):  e.g. H02M7/537 H03K17/687

DatabaseをEPに変えると、検索対象は欧州特許ですが、Full textでのキーワード検索が可能です。

同じキーワードで検索。  
("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

# I. Espacenet Advanced search (10)

2670件ヒットしましたが、500件までしか結果は表示されませんので、期間を数回に分割して、複数回の検索を行う必要があります。但し、明細書の全文検索ですから、1つでもキーワードがあれば、ヒットするため、Title, Abstract, Claimsでの検索に比べて、ノイズが極めて多いことは覚悟しなければなりません。

Approximately 2,670 results found in the EP database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the full text. Only the first 500 results are displayed.

Results are sorted by date of upload in database

1. Cationic lipid compositions targeting angiogenic endothelial cells
<p>★ <b>Inventor:</b> BALUK PETER [US] MCDONALD DONALD M [US] (+2)</p> <p><b>Applicant:</b> UNIV CALIFORNIA [US]</p> <p><b>EC:</b> A61K31/7088 A61K45/06 A61K47/48 (+13)</p> <p><b>IPC:</b> EP1767192 (A2) 2007-03-28 EP1767192 (A3) 2011-05-04</p> <p><b>Publication info:</b></p> <p><b>Priority date:</b> 1997-03-12</p>
2. Uses of antibodies to aminophospholipids for cancer treatment
<p>★ <b>Inventor:</b> RAN SOPHIA [US] THORPE PHILIP E [US]</p> <p><b>Applicant:</b> UNIV TEXAS [US]</p> <p><b>EC:</b> A01K67/027 A61K39/395 A61K45/00 (+9)</p> <p><b>IPC:</b> EP2311490 (A2) 2011-04-20 EP2311490 (A3) 2011-05-04</p> <p><b>Publication info:</b></p> <p><b>Priority date:</b> 1998-07-13</p>
3. Use of antibody to M-CSF
<p>★ <b>Inventor:</b> KAVANAUGH WILLIAM MICHAEL [US]</p> <p><b>Applicant:</b> NOVARTIS AG [CH] XOMA TECHNOLOGY LTD [US]</p> <p><b>EC:</b> A61K39/395 A61P19/008 C07K16/24</p> <p><b>IPC:</b> EP2277916 (A2) 2011-01-26 EP2311490 (A3) EP2277916 (A3)</p> <p><b>Publication info:</b></p> <p><b>Priority date:</b> 2005-07-28</p>

45

# I. Espacenet Advanced search (11)

DatabaseはEPのままで、Title or Abstractに同じキーワードを入れて検索してみます。

**Advanced search**

1. Database  
Select the database in which you wish to search: **i**  
[EP - complete collection including full text of European published applications]

2. Search terms  
Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** e.g. motor

Keyword(s) in title or abstract: **i** e.g. hair  
( "herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

Keyword(s) in full text: **i** e.g. hair

Publication number: **i** e.g. EP1883031

Application number: **i** e.g. EP20070010825

Priority number: **i** e.g. DE20021036409

Publication date: **i** e.g. 20070919

Applicant(s): **i** e.g. IBM

Inventor(s): **i** e.g. Siemens

International Patent Classification (IPC): **i** e.g. H02M7/537 H03K17/687

Clear Search

46

## I. Espacenet Advanced search (12)

12件がヒットしました。本来の好ましい検索は、Claims, Title, or Abstractでの検索ですが、EPOでは出来ません。WIPOでの検索では、Claims, Title, or Abstractでの検索が可能ですので、WIPOでの検索の併用をお勧めします。

**Result list**

12 results found in the EP database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Item	Inventor	Applicant	EC	IPC	Publication info	Priority date
1. Composition and method for treating cancer using herpes virus	NISHIYAMA YUKIHIRO [JP]	M S SCIENCE CORP [JP] NISHIYAMA YUKIHIRO [JP]	A61K31/337 A61K31/4375 A61K31/522 (+25)	EP2213300 (A1) 2010-08-04	2001-09-28	
2. MUTANT HERPES SIMPLEX VIRUS AND USE THEREOF IN THE TREATMENT OF SQUAMOUS CELL CANCER	BROWN SUSANNE MOIRA [GB] DUNN PAUL [GB] (+2)	CRUSADE LAB LTD [GB] SLOAN KETTERING INST CANCER [US]	A61K35/76 A61K48/00 C07K14/82 (+9)	EP1694852 (A2) 2006-08-30	2004-02-03	
3. Treatment of non-neuronal cancer using HSV mutant	ALBELDA STEVEN [US] BROWN MOIRA SUSANNE [GB] (+4)	UNIV GLASGOW [GB] WISTAR INST [US]	A61K35/76 A61K35/66 (IPC1-7)A61K35/76	EP1314430 (A1) 2003-05-28	1996-11-09	
4. TREATMENT OF NON-NEURONAL CANCER USING HSV MUTANT	ALBELDA STEVEN [US] BROWN SUSANNE [GB] (+4)	MEDICAL RES COUNCIL [GB] UNIV GLASGOW [GB] (+1)	A61K35/76 A61K35/66	EP0895476 (A1) 1999-02-10	1996-11-09	

47

## I. Espacenet Advanced search (13)

DatabaseをWIPOに変えると、検索対象はPCT出願だけですが、Full textでのキーワード検索が可能です。

**Advanced search**

1. Database  
Select the database in which you wish to search: **i**  
[WIPO - espacenet - complete collection including full text of PCT published applications]

2. Search terms  
Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** mouse and trap

Keyword(s) in title or abstract: **i** hair

Keyword(s) in full text: **i** ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

Publication number: **i** WOYYnnnnn, WOYYnnnnnn, WOYYYnnnnnn

Application number: **i** WO2007US14402

Priority number: **i** US20060423974

Publication date: **i** yyyyymmdd

Applicant(s): **i** novo

Inventor(s): **i** Smith

International Patent Classification (IPC): **i** H03K17/687

Clear Search

同じキーワードで検索。  
("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

48

## I. Espacenet Advanced search (14)

17336件ヒットしましたが、500件までしか結果は表示されませんので、期間を数回に分割して、複数回の検索を行う必要があります。

Result list

Approximately 17,336 results found in the EPO database for: ("Herpes simplex" or HSV) and *genes or recombin\** and *mutant or mutat\** and (nervous or cancer) in the full text  
Only the first 500 results are displayed.

Results are sorted by date of upload in database

1. GENETICALLY MODIFIED RAT MODELS FOR PHARMACOKINETICS

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
CRAWFORD JOHN STUART [US] OSTERTAG ERIC [US]	CRAWFORD JOHN STUART [US] OSTERTAG ERIC [US] (+1)	G01N33/68		WO2011014721 (A2) 2011-02-03 WO2011014721 (A3) 2011-04-28	2009-07-30

2. GALLIUM FORMULATION FOR THE TREATMENT AND PREVENTION OF INFECTIOUS DISEASES

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
LECHUGA-BALLESTEROS DAVID [US] MARTIN RUSSELL [US] (+5)	ARIDIS PHARMACEUTICALS [US] LECHUGA-BALLESTEROS DAVID [US] (+6)	A61K31/28		WO2011005354 (A2) 2011-01-13 WO2011005354 (A3) 2011-04-28	2009-05-04

3. MATERIALS AND METHODS FOR TREATING AND PREVENTING VIRAL INFECTIONS

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
AHMED CHULBUL IQBAL M [US] JOHNSON HOWARD M [US]	AHMED CHULBUL IQBAL M [US] JOHNSON HOWARD M [US] (+1)	A61K38/10 A61P31/12 A61P31/16 (+1)		WO2010151495 (A2) 2010-12-29 WO2010151495 (A3) 2011-04-28	2009-06-26

4. METHODS FOR MAKING CONTROLLED DELIVERY DEVICES HAVING ZERO ORDER KINETICS

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
BOWMAN PHILLIP [US] HO PAUL S [US] (+4)	BOWMAN PHILLIP [US] HO PAUL S [US] (+5)	A61F2/88 A61L27/14 A61M31/00 (+1)		WO2011008897 (A2) 2011-01-20 WO2011008897 (A3) 2011-04-28	2009-07-14

5. LOW DOSE COLONY STIMULATING FACTORS TO TREAT AMYLOIDOSIS

49

## I. Espacenet IPC検索 (1)

### 【US6, 248, 320の例】

US6, 248, 320の例では、米国特許庁は下記の4つのIPCを付与しています。これらはIPC第7版のIPC分類です。

A01N63/00; C12N15/00; C12N7/00; C12N7/04

EPOでは、同じ内容の特許に下記の多数のIPCを付与しており、

A61K35/30; A61K35/34; A61K48/00; A61P25/00; A61P25/16;  
A61P35/00; C07K14/035; C12N1/21; C12N15/00; C12N15/869;  
C12N7/04; C12R1/01; A61K35/30; A61K35/34; A61K48/00;  
A61P25/00; A61P35/00; C07K14/005; C12N1/21; C12N15/00;  
C12N15/869; C12N7/04; (IPC1-7): A01N63/00; C12N15/00;  
C12N7/00; C12N7/04

更に、下記のECLAコードを付与しています。

C07K14/035, C12N15/869H, C12N7/04

これらのコードの意味を確認して、検索コードを選定します。

50

## I . Espacenet IPC検索 (2) IPCの選定法

- WIPO (World Intellectual Property Organization) の  
“Browse and Search the Current IPC or Earlier Versions”  
<http://www.wipo.int/ipcpub/#refresh=page>  
を開き、Versionを指定して、IPCを入力して、IPCの意味を確認します。
- IPCは日本特許庁のIPDLの「パテントマップガイド」(PMGS)でも調べられます。
- 最初は関連特許に付されたIPCを参考にして検索することをお勧めします。

51

## I . Espacenet IPC検索 (3) WIPOのIPC表

The screenshot shows the WIPO IPC classification table. The table lists sections A through H with their corresponding descriptions. Annotations in yellow boxes provide instructions and context:

- A yellow box at the top right contains the URL: <http://www.wipo.int/ipcpub/#refresh=page>.
- A yellow box on the right side contains the text: "世界的に用いられている特許分類はIPCですが、EPOは独自のECLAの使用を推奨しており、IPCリストを直接リンクしていないので、上記のWIPOの“Browse and Search the Current IPC or Earlier Versions”か、日本特許庁のIPDLの「パテントマップガイド」(PMGS)を開いて、IPCを確認して下さい。"
- A yellow box at the bottom right contains the text: "この場合はIPC第7版を選定します。"
- A yellow box at the bottom center contains the text: "米国特許に付与されていたA01N63/00を入力し、“Go to”をクリック。検索結果は下の方に表示されるので、下にスクロールして確認して下さい。"

The table content is as follows:

Scheme	RCL	Catchwords
A		SECTION A — HUMAN NECESSITIES
B		SECTION B — PERFORMING OPERATIONS
C		SECTION C — CHEMISTRY; METALLURGY
D		SECTION D — TEXTILES; PAPER
E		SECTION E — FIXED CONSTRUCTIONS
F		SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
G		SECTION G — PHYSICS
H		SECTION H — ELECTRICITY

52

## I . Espacenet IPC検索 (4) WIPOのIPC表

このIPC bridge マークをクリックすると、対応する欧州特許庁のECLAコード、日本特許庁の patents マップガイダンスが閲覧できます。

A01N63/00の意味が表示されます。

53

## I . Espacenet IPC検索 (5) IPC Bridge

ECLAを選択すると、欧州特許庁の対応するECLAコードが表示されます。

Japaneseを選択すれば、日本特許庁のIPC第8版が開き、日本語でIPCの確認が可能です。

54

## I . Espacenet IPC検索 (6)

メニュー ヘルプ 先頭画面 戻る 進む 前メイングループ 次メイングループ メイングループ  
グループ選択

**\*\* IPC(第8版)(一覧表示) \*\*** A01N63/00の意味が日本語で表示されます。  
2011.05.08の時点で有効なIPCを表示します。 米国特許庁では付与されたA01N63/00はUS6,248,320の  
内容にあまりふさわしくないようです。

この画面は、メイングループA01N63/00内の「IPC」を全て表示しています。(CC:コノコダンス)

・表示種別を変更する場合は表示種別を選択後、表示種別をクリックしてください。表示種別の違いはヘルプを参照して下さい

表示種別  一覧表示  タブ表示  同階層表示

- [63/00](#) (2006.01) 殺生物剤、有害生物忌避剤または誘引剤、または植物生長調節剤であって、微生物、ビールス、かびまたは動物、例、線虫、を含むもの、あるいは微生物、ビールス、かびまたは動物によって生産された、またはそれらから採取された物質、例、酵素または発酵生産物(構造決定化合物を含むもの27/00~59/00) [3] [CC](#)
- [63/02](#) (2006.01) 微生物または動物により生産され、またはそれらから採取された物質 [3] [CC](#)
- [63/04](#) (2006.01) かび;かびによって生産され、またはかびから採取された物質 [3] [CC](#)

55

## I . Espacenet IPC検索 (7)

WORLD INTELLECTUAL PROPERTY ORGANIZATION

IPC Home Page - Help

Version: Version 7

Current symbol: C12N 7/00

Language: English

View mode: full

Search: Terms, Cross-references, Fuzzy (TACSY)

Assistance: Text categorization (IPCCAT)

Scheme	RCL	Catchwords
C12N 7/00		Viruses, e.g. bacteriophages; Compositions thereof; Preparation or purification thereof (medicinal preparations containing viruses A61K 35/76; preparing medicinal viral antigen or antibody compositions, e.g. virus vaccines, A61K 39/00) [3]
C12N 7/01		Viruses, e.g. bacteriophages, modified by introduction of foreign genetic material (vectors C12N 15/00) [5]
C12N 7/02		Recovery or purification [3]
C12N 7/04		Inactivation or attenuation; Producing viral sub-units [3]
C12N 7/06		by chemical treatment [3]
C12N 7/08		by serial passage of virus [3]
C12N 9/00		e.g. ligases (6); Proenzymes; Compositions thereof (preparations containing enzymes for cleaning or disinfecting, e.g. detergents, A61K 37/48; medicinal preparations containing enzymes or proenzymes A61K 38/43; enzyme containing detergents, A61K 47/48; processes for preparing, activating, inhibiting, separating or purifying enzymes (A61K 47/48, A61K 47/50) [3]
C12N 9/02		Oxidoreductases (1.), e.g. luciferase [3]
C12N 9/04		acting on CHOH groups as donors, e.g. glucose oxidase, [3]
C12N 9/06		acting on nitrogen containing compounds as donors (1.4, [3]
C12N 9/08		acting on hydrogen peroxide as acceptor (1.11) [3]
C12N 9/10		Transferases (2.) (ribonucleases C12N 9/22) [3]
C12N 9/12		transferring phosphorus containing groups, e.g. kinases [3]
C12N 9/14		Hydrolases (3.) [3]
C12N 9/16		acting on ester bonds (3.1) [3]
C12N 9/18		Carboxylic ester hydrolases [3]

IPCの意味を確認。  
C12N 7/00: ウイルス、  
C12N 7/04: Inactivation or attenuation; Producing viral sub-units  
同様に、その他のIPCの意味も確認し、検索式作成の参考にします。  
C12N 15/00: Mutation or genetic engineering  
C07K14/035: Herpes simplex virus I or II  
C12N15/869: Herpesviral vectors

56

# I. Espacenet Advanced Search (15)

**1. Database**  
 Select the database in which you wish to search: **i**  
 Worldwide - full collection of published patent applications from 80+ countries

**2. Search terms**  
 Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** plastic and bicycle

Keyword(s) in title or abstract: **i** hair  
 ("herpes simplex" or HSV)

Publication number: **i** WO2008014520

Application number: **i** DE19971031696

Priority number: **i** WO1995US15925

Publication date: **i** 2010:2011

Applicant(s): **i** Institut Pasteur

Inventor(s): **i** Smith

European Classification (ECLA): F03G7/10

International Patent Classification (IPC): **i** H03M1/12  
 (C12N7/04 or C12N15/00)

Clear Search

検索語; ("herpes simplex" or HSV)、公開日期間; 2010:2011、IPC; (C12N7/04 or C12N15/00)で検索します。IPCはスペースを詰めて検索します。

# I. Espacenet Advanced Search (16)

**Result list**

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6 results found in the Worldwide database for: ("herpes simplex" or HSV) in the title or abstract AND 2010:2011 as the publication date AND (C12N7/04 or C12N15/00) as the IPC classification

Sort by: Upload date Sort order: Descending Sort

1. Compositions and Methods Using Herpes Simplex Virus

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ HE BIN [US] VERPOOTEN DUSTIN [US] (+1)			A61K39/245 A61P31/22 A61P37/04 (+2)	US2011052630 (A1) 2011-03-03	2009-07-15

2. MEGANUCLEASE VARIANTS CLEAVING THE GENOME OF A PATHOGENIC NON-INTEGRATING VIRUS AND USES THEREOF

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ CHOULIKA ANDRE [FR] CEDRONE FREDERIC [FR] (+1)	CELLECTIS [FR] CHOULIKA ANDRE [FR] (+2)	C12N9/22	C12N9/22	WO2010136981 (A2) 2010-12-02 WO2010136981 (A3) 2010-04-28	2009-05-26

3. Treatment of Cancer Using HSV Mutant

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ MACLEAN ALASDAIR RODERICK [GB] BROWN SUSANNE MOIRA [GB] (+2)	CRUSADE LAB LTD [GB] WISTAR INST [US]	A61K35/76 C12N7/00	A61K35/76 A61P35/00 A61P35/04 (+5)	US2010172872 (A1) 2010-07-08	1994-07-29

4. VIRAL ANTIGEN

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ WETTENDORFF MARTINE ANNE CECILE	GLAXOSMITHKLINE BIOLOG SA	A61K39/12 A61K39/295 (+2)	A61K39/00 A61K39/118 A61K39/12 (+10)	JP2010090158 (A) 2010-04-22	2002-03-18

6件がヒットしました。

## I . Espacenet Classification Search (1)

名前はClassification Searchですが、中身はECLAの選択方法です。最初に適したECLAコードを見つけ出すのに使います。

Search the European classification

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Index A B C D E F G H Y

HUMAN NECESSITIES A

PERFORMING OPERATIONS; TRANSPORTING B

CHEMISTRY; METALLURGY C

TEXTILES; PAPER D

FIXED CONSTRUCTIONS E

MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING ENGINES OR PUMPS F

PHYSICS G

ELECTRICITY H

GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-OVER TECHNOLOGIES SPANNING OVER SEVERAL SECTIONS OF THE IPC [N0403] [M1103] Y

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59

## I . Espacenet ECLAコード

- European Classification system (ECLA) は、欧州特許庁により編集され、特許検索に用いられている特許分類。
- ECLAは、IPCに基づいて構成されているが、より細かく分類され、かつ常にアップデートされています。
- 2007年4月時点で、IPC第8版は、70 000グループを収録していたが、ECLAは132 200グループを収録していました。

60

## I . Espacenet Classification Search (2)

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**Search the European classification** herpes simplex を入力して、Search.

Find classification(s) for keywords  Search

Find description for a symbol  Search

HUMAN NECESSITIES A   
 PERFORMING OPERATIONS; TRANSPORTING B   
 CHEMISTRY; METALLURGY C   
 TEXTILES; PAPER D   
 FIXED CONSTRUCTIONS E   
 MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING ENGINES OR PUMPS F   
 PHYSICS G   
 ELECTRICITY H   
 GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-OVER TECHNOLOGIES Y   
 SPANNING OVER SEVERAL SECTIONS OF THE IPC [N0403] [M1103]

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61

## I . Espacenet Classification Search (3)

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→ How can I view the description of a particular ECLA class?  
→ What do the dots/boxes mean in front of the classifications found?

**Search the European classification** herpes simplex に関するECLAコードが表示されました。

Find classification(s) for keywords  Search

Find description for a symbol  Search

- Medicinal preparations containing organic active ingredients A61K31
- Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof C07K14
- Mutation or genetic engineering; DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification; Use of hosts therefor (mutants or geni... C12N15
- Medicinal preparations containing antigens or antibodies (materials for immunoassay G01N33/53)[C9805] A61K39
- Viruses; Bacteriophages; Compositions thereof; Preparation or purification thereof (preparing medicinal viral antigen or antibody composition, e.g. virus vaccines, ... C12N7
- Medicinal preparations containing material or reaction products thereof with undetermined constitution A61K35
- Medicinal preparations characterised by special physical form (nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparataions ... A61K9
- Medicinal preparations containing active ingredients not provided for in groups A61K31/00 to ... A61K45
- Immunoglobulins [IGs], e.g. monoclonal or polyclonal antibodies [N: (antibodies with enzymatic activity, e.g. abzymes C12N9/00B)] [C0207] C07K16
- Medicinal preparations containing peptides (peptides containing beta-lactam rings A61K31/00; cyclic dipeptides not having in their mole... A61K38

関係の深そうなECLAコードをクリックして、その意味を確認して検索に使います。

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62

## I . Espacenet Classification Search (4)

Search

CHEMISTRY; METALLURGY

BIOCHEMISTRY; BEER; SPIRITS; WINE; VINEGAR; MICROBIOLOGY; ENZYMOLOGY; MUTATION OR GENETIC ENGINEERING  C12

MICRO-ORGANISMS OR ENZYMES; COMPOSITIONS THEREOF (biocides, pest repellants or attractants, or plant growth regulators, containing micro-organisms, viruses, microbial fungi, enzymes, fermentates or substances produced by or extracted from micro-organisms or animal material A01N63/00 ; food compositions A21, A23; medicinal preparations A61K; chemical aspects of, or use of materials for, bandages, dressings, absorbent pads or surgical articles A61L; fertilisers C05); PROPAGATING, PRESERVING OR MAINTAINING MICRO-ORGANISMS (preservation of living parts of humans or animals A01N1/02); MUTATION OR GENETIC ENGINEERING; CULTURE MEDIA (micro-biological testing media C12Q)  C12N

Mutation or genetic engineering; DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification; Use of hosts therefor (mutants or genetically engineered micro-organisms, per se C12N1/00 , C12N5/00 , C12N7/00 ; new plants per se A01H; plant reproduction by tissue culture techniques A01H4/00 ; new animals per se A01K67/00 ; use of medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases, gene therapy A61K48/00)  C12N15

- Preparation of mutants without inserting foreign genetic material therein; Screening processes therefor  C12N15/01
- Preparation of hybrid cells by fusion of two or more cells, e.g. protoplast fusion [N: (monoclonal antibodies C07K16/00 ; apparatus for cell fusion C12M)] [C0207]  C12N15/02
- Bacteria  C12N15/03
- Fungi  C12N15/04
- Recombinant DNA-technology  C12N15/09
- Processes for the isolation, preparation or purification of DNA or RNA (chemical C07H21/00 ; preparation of non-structural polynucleotides from micro-organisms [C0703]  C12N15/10
  - [N: Extracting or separating nucleic acids from biological samples, e.g. pure separation or isolation methods; Conditions, buffers or apparatuses therefor] [N9706]  C12N15/10A
  - [N: by means of a solid support carrier, e.g. particles, polymers] [N9910]  C12N15/10A2
  - [N: by chromatography, e.g. electrophoresis, ion-exchange, reverse phase] [N9910]  C12N15/10A2B
  - [N: by using magnetic beads] [N9910]  C12N15/10A2D
  - [N: by filtration, e.g. using filters, frits, membranes] [N9910]  C12N15/10A3
  - [N: Mutagenizing nucleic acids] [N9706]  C12N15/10B
  - [N: In vivo mutagenesis using high mutation rate "mutator" host strains by inserting genetic material, e.g. encoding an error prone polymerase, disrupting a gene for mismatch repair] [N0608]  C12N15/10B1
  - [N: by DNA shuffling, e.g. RSR, STEP, RPR] [N0110]  C12N15/10B2
  - [N: mutagenesis by gene assembly, e.g. assembly by oligonucleotide extension PCR] [N1006]  C12N15/10B4

**C12N15 の更に細分化したコードを見ることが出来ます。必要に応じて、下位のコードを用います。**

63

## I . Espacenet Classification Search (5)

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- Medicinal preparations containing organic active ingredients  A61K31
- Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof  C07K14
- Mutation or genetic engineering; DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification; Use of hosts therefor (mutants or genetically engineered micro-organisms, per se C12N1/00 , C12N5/00 , C12N7/00 ; new plants per se A01H; plant reproduction by tissue culture techniques A01H4/00 ; new animals per se A01K67/00 ; use of medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases, gene therapy A61K48/00)  C12N15
- Medicinal preparations containing antigens or antibodies (materials for immunoassay A61K33/53) [C9805]  A61K39
- Viruses; Bacteriophages; Compositions thereof; Preparation or purification thereof (preparing medicinal viral antigen or antibody composition, e.g. virus vaccines, ...)  C12N7
- Medicinal preparations containing material or reaction products thereof with undetermined constitution  A61K35
- Medicinal preparations characterised by special physical form (nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparations ...)  A61K9
- Medicinal preparations containing active ingredients not provided for in groups A61K31/00 to ...  A61K45
- Immunoglobulins [IGs], e.g. monoclonal or polyclonal antibodies [N: (antibodies with enzymatic activity, e.g. abzymes C12N9/00B)] [C0207]  C07K16
- Medicinal preparations containing peptides (peptides containing beta-lactam rings A61K31/00 ; cyclic dipeptides not having in their mole...  A61K38

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## I . Espacenet Classification Search (6)

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選択したECLAコードが入力されていますので、Advanced searchの検索方法に従って、キーワード等と組み合わせ検索します。単に調べたECLAをコピーして入力しても無論構いません。

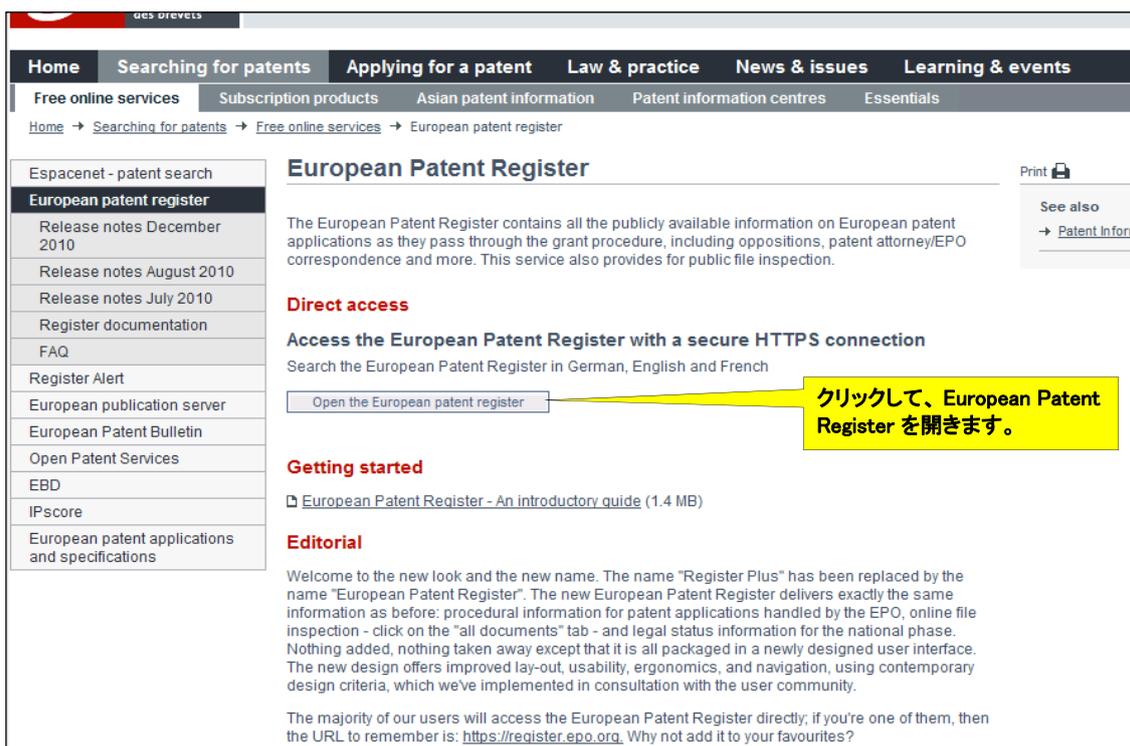
65

## II . European Patent Register

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<p>Home <b>Searching for patents</b> Applying for a patent Law &amp; practice News &amp; issues Learning &amp; events</p>		
<p><b>Online services</b></p> <p>→ <a href="#">Online filing</a></p> <p>→ <a href="#">Online fee payment</a></p> <p>→ <a href="#">European Patent Register</a></p> <p>→ <a href="#">Find a professional representative</a></p>	<p><b>Before you apply</b></p> <p>→ <a href="#">How to apply for a patent</a></p> <p>→ <a href="#">Search existing patents</a></p> <p><b>Amendments to the Implementing Regulations</b></p> <p>→ <a href="#">Information on changes as of 1.4.2010 and 1.1.2011</a></p>	<p><b>Towards an enhanced European IP environment</b></p> <p>→ <a href="#">President's blog</a></p> <p></p>
<p>欧州特許の法的状況を調べるには、EPOのフロントページでOnline Serviceの"European Patent Register"をクリックします。以前は"Register Plus"と称されていましたが、名称とデザインが変わりました。</p>		<p><b>European Inventor Award 2011</b></p> <p>19 May 2011, Budapest</p> <p>→ <a href="#">Register now</a></p> <p>→ <a href="#">Find us on Facebook</a></p> <p></p>
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66

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The screenshot shows the homepage of the European Patent Register. The navigation bar includes links for Home, Searching for patents, Applying for a patent, Law & practice, News & issues, and Learning & events. Below the navigation bar, there are sections for Free online services, Subscription products, Asian patent information, Patent information centres, and Essentials. The main content area is titled "European Patent Register" and includes a sidebar with links to Espacenet, Release notes, Register documentation, and other services. The main text describes the register's content and provides direct access instructions. A yellow callout box highlights the "Open the European patent register" button with the text "クリックして、European Patent Register を開きます。"

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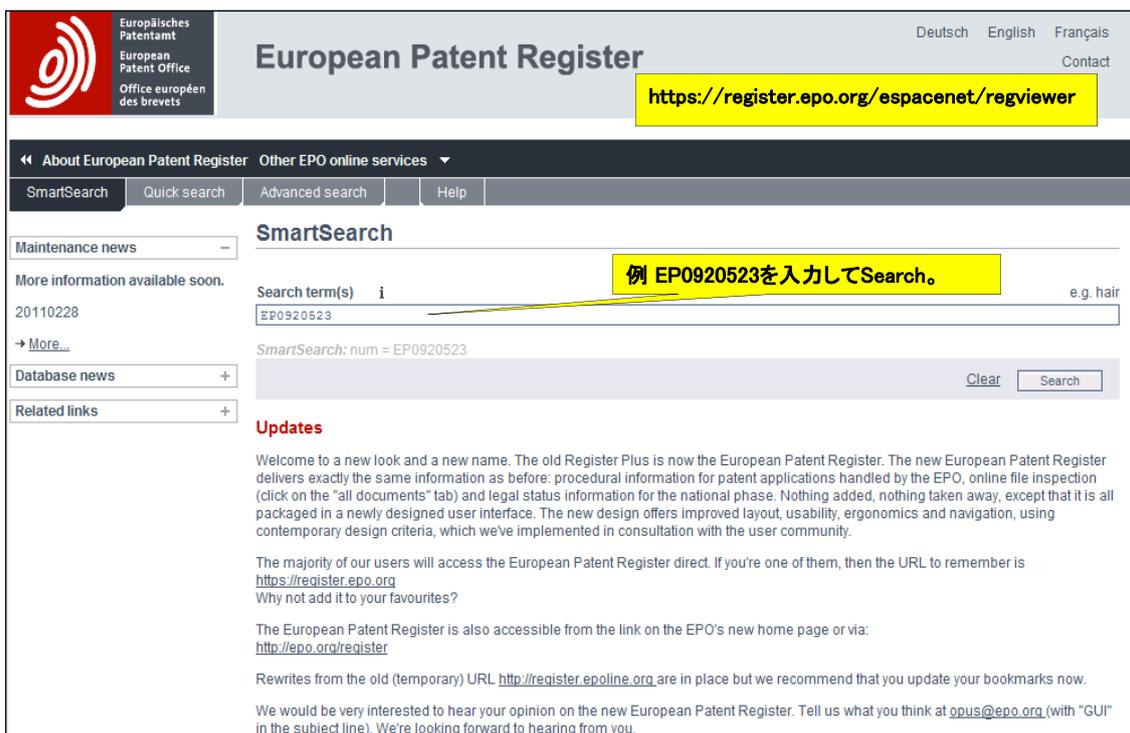
**Editorial**

Welcome to the new look and the new name. The name "Register Plus" has been replaced by the name "European Patent Register". The new European Patent Register delivers exactly the same information as before: procedural information for patent applications handled by the EPO, online file inspection - click on the "all documents" tab - and legal status information for the national phase. Nothing added, nothing taken away except that it is all packaged in a newly designed user interface. The new design offers improved lay-out, usability, ergonomics, and navigation, using contemporary design criteria, which we've implemented in consultation with the user community.

The majority of our users will access the European Patent Register directly; if you're one of them, then the URL to remember is: <https://register.epo.org>. Why not add it to your favourites?

67

## II. European Patent Register



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SmartSearch Quick search Advanced search Help

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Rewrites from the old (temporary) URL <http://register.epoline.org> are in place but we recommend that you update your bookmarks now.

We would be very interested to hear your opinion on the new European Patent Register. Tell us what you think at [opus@epo.org](mailto:opus@epo.org) (with "GUI" in the subject line). We're looking forward to hearing from you.

68

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EP0920523

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→ What kind of information can be found under "Status"?

→ What do the digits in square brackets refer to?

→ What does N/P stand for?

→ Why are the publication dates of the European and international applications identical ?

→ What does the letter in square brackets stand for in the "Documents cited" part?

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Maintenance news +

Database news +

**About this file: EP0920523**

Refine search XML ST36 Show history Espacenet Report error

**EP 0920523 - HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES** [Right-click to bookmark this link]

**Status** No opposition filed within time limit  
Data last updated on 04.05.2011

**Most recent event** 18.01.2008 [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48] [49] [50] [51] [52] [53] [54] [55] [56] [57] [58] [59] [60] [61] [62] [63] [64] [65] [66] [67] [68] [69] [70] [71] [72] [73] [74] [75] [76] [77] [78] [79] [80] [81] [82] [83] [84] [85] [86] [87] [88] [89] [90] [91] [92] [93] [94] [95] [96] [97] [98] [99] [100] [101] [102] [103] [104] [105] [106] [107] [108] [109] [110] [111] [112] [113] [114] [115] [116] [117] [118] [119] [120] [121] [122] [123] [124] [125] [126] [127] [128] [129] [130] [131] [132] [133] [134] [135] [136] [137] [138] [139] [140] [141] [142] [143] [144] [145] [146] [147] [148] [149] [150] [151] [152] [153] [154] [155] [156] [157] [158] [159] [160] [161] [162] [163] [164] [165] [166] [167] [168] [169] [170] [171] [172] [173] [174] [175] [176] [177] [178] [179] [180] [181] [182] [183] [184] [185] [186] [187] [188] [189] [190] [191] [192] [193] [194] [195] [196] [197] [198] [199] [200] [201] [202] [203] [204] [205] [206] [207] [208] [209] [210] [211] [212] [213] [214] [215] [216] [217] [218] [219] [220] [221] [222] [223] [224] [225] [226] [227] [228] [229] [230] [231] [232] [233] [234] [235] [236] [237] [238] [239] [240] [241] [242] [243] [244] [245] [246] [247] [248] [249] [250] [251] [252] [253] [254] [255] [256] [257] [258] [259] [260] [261] [262] [263] [264] [265] [266] [267] [268] [269] [270] [271] [272] [273] [274] [275] [276] [277] [278] [279] [280] [281] [282] [283] [284] [285] [286] [287] [288] [289] [290] [291] [292] [293] [294] [295] [296] [297] [298] [299] [300] [301] [302] [303] [304] [305] [306] [307] [308] [309] [310] [311] [312] [313] [314] [315] [316] [317] [318] [319] [320] [321] [322] [323] [324] [325] [326] [327] [328] [329] [330] [331] [332] [333] [334] [335] [336] [337] [338] [339] [340] [341] [342] [343] [344] [345] 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[2010] [2011] [2012] [2013] [2014] [2015] [2016] [2017] [2018] [2019] [2020] [2021] [2022] [2023] [2024] [2025] [2026] [2027] [2028] [2029] [2030] [2031] [2032] [2033] [2034] [2035] [2036] [2037] [2038] [2039] [2040] [2041] [2042] [2043] [2044] [2045] [2046] [2047] [2048] [2049] [2050] [2051] [2052] [2053] [2054] [2055] [2056] [2057] [2058] [2059] [2060] [2061] [2062] [2063] [2064] [2065] [2066] [2067] [2068] [2069] [2070] [2071] [2072] [2073] [2074] [2075] [2076] [2077] [2078] [2079] [2080] [2081] [2082] [2083] [2084] [2085] [2086] [2087] [2088] [2089] [2090] [2091] [2092] [2093] [2094] [2095] [2096] [2097] [2098] [2099] [2100] [2101] [2102] [2103] [2104] [2105] [2106] [2107] [2108] [2109] [2110] [2111] [2112] [2113] [2114] [2115] [2116] [2117] [2118] [2119] [2120] [2121] [2122] [2123] [2124] [2125] [2126] [2127] [2128] [2129] [2130] [2131] [2132] [2133] [2134] [2135] [2136] [2137] [2138] [2139] [2140] [2141] [2142] [2143] [2144] [2145] [2146] [2147] [2148] [2149] [2150] [2151] [2152] 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## II . European Patent Register About this file (3)

<b>International search report:</b>	<b>Date:</b>	05.02.1998	
	<b>Authority:</b>	EP	
<b>Classification</b>	<b>International :</b>	C12N15/86, C12N7/04, C12N7/01, C07K14/035	[1999/23]
<b>Designated contracting states</b>		AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE	[1999/23]
<b>Title</b>	<b>German :</b>	HSV STAMM MIT MANGEL FÜR FUNKTIONELLE ICP27 UND ICP34.5 GENEN	[1999/23]
	<b>English :</b>	HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	[1999/23]
	<b>French :</b>	SOUCHES DU VIRUS DE L'HERPES SIMPLEX EXEMPTES DES GENES FONCTIONNELS ICP27 ET ICP34.5	[1999/23]
<b>Entry into regional phase</b>	23.02.1999	National basic fee paid	EPOの審査状況も示されます。
	23.02.1999	Designation fee(s) paid	
	23.02.1999	Examination fee paid	
<b>Examination procedure</b>	16.02.1998	Request for preliminary examination filed International Preliminary Examining Authority: EP	
	23.02.1999	Examination requested	
	23.02.1999	Amendment by applicant (claims and/or description)	
	20.09.2001	Request for accelerated examination filed	
	29.10.2001	Decision about request for accelerated examination - accepted: Yes	
	29.10.2001	Despatch of a communication from the examining division (Time limit: M04)	
	15.02.2002	Reply to a communication from the examining division	
	03.02.2003	Communication of intention to grant the patent	
	28.07.2003	Fee for grant paid	

71

## II . European Patent Register About this file (4)

<b>Opposition(s)</b>	09.07.2004	No opposition filed within time limit [2004/40]	
<b>Fees paid</b>	<b>Renewal fee</b>		
	13.07.1999	Renewal fee patent year 03	年金支払いと年金不払いでの失効が示されています。
	12.07.2000	Renewal fee patent year 04	
	12.07.2001	Renewal fee patent year 05	
	24.07.2002	Renewal fee patent year 06	
	14.07.2003	Renewal fee patent year 07	
<b>Lapse</b>	AT	08.10.2003	
	FI	08.10.2003	
	IT	08.10.2003	
	NL	08.10.2003	
	DK	08.01.2004	
	GR	08.01.2004	
	SE	08.01.2004	
	ES	19.01.2004	
	PT	08.03.2004	
		[2008/08]	
<b>Documents cited:</b>	<b>Search</b>	[ ] See references of WO 9804726A1	
	<b>International search</b>	[Y] ▶ EP0453242	
		[Y] ▶ WO9204050	

72

## II. European Patent Register Legal status (1)

EP0920523		Legal status: EP0920523																																					
<ul style="list-style-type: none"> <li>About this file</li> <li><b>Legal status</b></li> <li>Event history</li> <li>Citations</li> <li>Patent family</li> <li>All documents</li> </ul>	<ul style="list-style-type: none"> <li>Quick help</li> <li>→ What happens if I click on the "XML" or "ST36" buttons?</li> <li>→ What does "legal status" mean?</li> <li>→ What does PRS stand for?</li> <li>→ What is meant by "entry into the European phase"?</li> </ul>	Refine search   XML   ST36   Espacenet   Report error	<b>Designated contracting states</b> <table border="1"> <tr><td>AT</td><td>Lapse : 08.10.2003</td></tr> <tr><td>BE</td><td></td></tr> <tr><td>CH</td><td></td></tr> <tr><td>DE</td><td></td></tr> <tr><td>DK</td><td>Lapse : 08.01.2004</td></tr> <tr><td>ES</td><td>Lapse : 19.01.2004</td></tr> <tr><td>FI</td><td>Lapse : 08.10.2003</td></tr> <tr><td>FR</td><td></td></tr> <tr><td>GB</td><td></td></tr> <tr><td>GR</td><td>Lapse : 08.01.2004</td></tr> <tr><td>IE</td><td></td></tr> <tr><td>IT</td><td>Lapse : 08.10.2003</td></tr> <tr><td>LI</td><td></td></tr> <tr><td>LU</td><td></td></tr> <tr><td>MC</td><td></td></tr> <tr><td>NL</td><td>Lapse : 08.10.2003</td></tr> <tr><td>PT</td><td>Lapse : 08.03.2004</td></tr> <tr><td>SE</td><td>Lapse : 08.01.2004</td></tr> </table>	AT	Lapse : 08.10.2003	BE		CH		DE		DK	Lapse : 08.01.2004	ES	Lapse : 19.01.2004	FI	Lapse : 08.10.2003	FR		GB		GR	Lapse : 08.01.2004	IE		IT	Lapse : 08.10.2003	LI		LU		MC		NL	Lapse : 08.10.2003	PT	Lapse : 08.03.2004	SE	Lapse : 08.01.2004
AT	Lapse : 08.10.2003																																						
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DE																																							
DK	Lapse : 08.01.2004																																						
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FI	Lapse : 08.10.2003																																						
FR																																							
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GR	Lapse : 08.01.2004																																						
IE																																							
IT	Lapse : 08.10.2003																																						
LI																																							
LU																																							
MC																																							
NL	Lapse : 08.10.2003																																						
PT	Lapse : 08.03.2004																																						
SE	Lapse : 08.01.2004																																						
			<b>Examination procedure</b> 28.07.2003   Fee for printing paid																																				
			<b>Entry into regional phase</b> 23.02.1999   National basic fee paid																																				
			23.02.1999   Designation fee(s) paid																																				

“Legal status”では、欧州特許の法的状況が表示されます。

Lapseとは、年金不払いによる失効を意味します。

73

## II. European Patent Register Legal status (2)

<b>Fees paid</b>	<b>Renewal fee</b>		
	13.07.1999	Renewal fee patent year 03	
	12.07.2000	Renewal fee patent year 04	
	12.07.2001	Renewal fee patent year 05	
	24.07.2002	Renewal fee patent year 06	
	14.07.2003	Renewal fee patent year 07	
<b>European patent granted</b>	08.10.2003		
<b>Opposition procedure</b>	09.07.2004	No opposition filed within time limit	published on 29.09.2004
<b>INPADOC data</b>	The EPO does not accept any responsibility for the accuracy of legal status data relating to the post-grant phase, including but not limited to the specific purposes, nor can it guarantee that such data are up to date. For authoritative information, please refer to the relevant national patent.		
	PRS date :	09.06.1999	
	PRS description :	DESIGNATED CONTRACTING STATES:	
	Kind Code of Ref Document:	A1	
	Designated State(s):	AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC	
	PRS date :	09.06.1999	
	PRS description :	REQUEST FOR EXAMINATION FILED	
	Effective DATE:	19990223	
	PRS date :	17.11.1999	
	PRS description :	TRANSFER OF RIGHTS OF AN EP APPLICATION	
	Owner Name:	UNIVERSITY COLLEGE, LONDON	
	PRS date :	17.11.1999	

欧州特許出願の年金支払い状況です。

下段にINPADOCのデータが表示されています。INPADOCのPRS記号(Patent Register Service code)は、多くはその意味が併記されていますが、意味が分からない場合は、“Raw data resources (INPADOC)”の中の“Classification of recently used PRS codes”  
<http://www.epo.org/patents/patent-information/raw-data/useful-tables/classification-prs.html>  
 をご参照下さい。

74

## II. European Patent Register Event history

Event history: EP0920523	
02.09.1997	PCT data prior to European publication
09.03.1999	PCT data prior to European publication
17.04.1998	PCT data prior to European publication
04.03.1999	PCT data prior to European publication
20.04.1999	PCT data prior to European publication
23.04.1999	Request for examination filed <span style="float: right;">published on 09.06.1999 [1999/23]</span>
23.04.1999	Publication in section I.1 EP Bulletin <span style="float: right;">published on 09.06.1999 [1999/23]</span>
19.05.1999	Amendment by applicant
22.07.1999	Renewal fee
01.10.1999	Change - representative <span style="float: right;">published on 17.11.1999 [1999/48]</span>
01.10.1999	Change - applicant <span style="float: right;">published on 17.11.1999 [1999/48]</span>
21.07.2000	Renewal fee
20.07.2001	Renewal fee
25.09.2001	Request for accelerated examination
24.10.2001	Request for accelerated examination
24.10.2001	Examination report or reply
19.02.2002	Examination report or reply
07.08.2002	Renewal fee
24.01.2003	Communication of intention to grant a patent
24.07.2003	New entry: Renewal fee paid

Event historyでは、EPOでの経過情報が時系列的に表示されます。

75

## II. European Patent Register Citations

Citations: EP0920523	
Cited in	Search
Type :	
Publication information :	[ ] See references of WO 9804726A1
Cited in	International search
Type :	Patent literature
Publication No. :	EP0453242
Type :	Patent literature
Publication No. :	WO9204050
Type :	Patent literature
Publication No. :	WO9804395
Type :	Non-patent literature
Publication information :	[Y] CHOU J ET AL: "MAPPING OF HERPES SIMPLEX VIRUS-1 NEUROVIRULENCE TO Y134.5, A GENE NONESSENTIAL FOR VIRUS REPLICATION AND PATHOGENICITY", SCIENCE, vol. 250, no. 4985, 30 November 1990, pages 1262-1268, XP000255907

"Citation"はEPO審査のサーチレポートの引用文献や出願人の引用文献が表示されます。

本欧州特許はPCT経由でEPOに出願されているので、PCT出願の公開公報WOのサーチレポートで引用された先行技術文献が表示されています。

76

## II. European Patent Register Patent family

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EP0920523

Patent family: EP0920523

Refine search XML ST36 Espacenet

**“Patent family”は当該発明の他の国への特許(出願)公報が表示されます。**

Type Patent family member

Publication No.	Date	Type
AT251672I	15.10.2003	T
Priority number	Date	
GB9702017	25.07.1997	
GB9615794	26.07.1996	
Publication No.	Date	Type
AU726645B	16.11.2000	B2
Priority number	Date	
GB9702017	25.07.1997	
GB9615794	26.07.1996	
Publication No.	Date	Type
AU370079I	20.02.1998	A
Priority number	Date	
GB9702017	25.07.1997	
GB9615794	26.07.1996	
Publication No.	Date	Type
CA2262010	31.08.2010	C
Priority number	Date	
CA2262010	05.02.1998	A1
GB9702017	25.07.1997	

Quick help

- What happens if I click on the "XML" or "ST36" buttons?
- What does "patent family" mean?
- What are "equivalents"?
- Which types of document will I find under "Patent family"?
- What does A1, A2, A3 and B stand for after a publication number?

Maintenance news +

Database news +

Related links +

**EspacenetのINPADOC Patent familyでは10件ですが、ここでは、13件の特許(出願)公報が記載されています。DEのT公報、GB、ILが増えています。**

77

## II. European Patent Register All documents (1)

EP0920523

All documents: EP0920523

Refine search Selected documents Espacenet

All documents(31)

**“All documents”では欧州特許の審査経過の全書類(包装袋資料)が閲覧・ダウンロード可能です。**

Date	Document type	Procedure	Number of pages
<input type="checkbox"/> 11.08.2004	Communication regarding the filing of a request for extension of the opposition period	Search / examination	1
<input type="checkbox"/> 28.08.2003	Decision to grant a European patent		4
<input type="checkbox"/> 28.07.2003	Filing of the translations of the claims		2
<input type="checkbox"/> 28.07.2003	Translation of the claims	Search / examination	4
<input type="checkbox"/> 28.07.2003	Translation of the claims	Search / examination	3
<input type="checkbox"/> 23.05.2003	Grant of extension of time limit (grant procedure)	Search / examination	1
<input type="checkbox"/> 09.05.2003	Request for extension of time limit to intention to grant	Search / examination	1
<input type="checkbox"/> 03.02.2003	Bibliographic data of the European patent application	Search / examination	2
<input type="checkbox"/> 03.02.2003	Communication about intention to grant a European patent	Search / examination	4
<input type="checkbox"/> 03.02.2003	Druckexemplar	Search / examination	24
<input type="checkbox"/> 23.01.2003	General enquiry	Search / examination	1
<input type="checkbox"/> 01.07.2002	Claims	Search / examination	2
<input type="checkbox"/> 01.07.2002	Claims	Search / examination	1
<input type="checkbox"/> 01.07.2002	Description	Search / examination	2
<input type="checkbox"/> 01.07.2002	Letter filed before dispatch of the 1st communication from the Examining Division(examination procedure)	Search / examination	2
<input type="checkbox"/> 15.02.2002	Claims	Search / examination	5
<input type="checkbox"/> 15.02.2002	Description	Search / examination	3

Quick help

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- Is it possible to print a list of all the documents?
- Can I sort the list of documents?
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- Can I open multiple documents in separate windows?
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**全資料一括選択のボタンですが、必要な資料だけダウンロードすることをお勧めします。**

**必要な資料にチェックを入れ、Selected documentsをクリックし、PDFでダウンロードできます。**

**但し、電子化前の資料は閲覧不可です。**

78

## II . European Patent Register All documents (2)

All documents	Date	Document type	Procedure	Number of pages
<input type="checkbox"/>	11.08.2004	<a href="#">Communication regarding the expiry of opposition period</a>	Search / examination	1
<input type="checkbox"/>	28.08.2003	<a href="#">Decision to grant a European patent</a>	Search / examination	4
<input type="checkbox"/>	28.07.2003	<a href="#">Filing of the translations of the claims</a>	Search / examination	2
<input type="checkbox"/>	28.07.2003	<a href="#">Translation of the claims</a>	Search / examination	4
<input type="checkbox"/>	28.07.2003	<a href="#">Translation of the claims</a>	Search / examination	3
<input type="checkbox"/>	23.05.2003	<a href="#">Grant of extension of time limit (grant procedure)</a>	Search / examination	1
<input type="checkbox"/>	09.05.2003	<a href="#">Request for extension of time limit to intention to grant</a>	Search / examination	1
<input type="checkbox"/>	03.02.2003	<a href="#">Bibliographic data of the European patent application</a>	Search / examination	2
<input type="checkbox"/>	03.02.2003	<a href="#">Communication about intention to grant a European patent</a>	Search / examination	4
<input type="checkbox"/>	03.02.2003	<a href="#">Druckexemplar</a>	Search / examination	24
<input type="checkbox"/>	23.01.2003	<a href="#">General enquiry</a>	Search / examination	1
<input type="checkbox"/>	01.07.2002	<a href="#">Claims</a>	Search / examination	2
<input type="checkbox"/>	01.07.2002	<a href="#">Claims</a>	Search / examination	1
<input type="checkbox"/>	01.07.2002	<a href="#">Description</a>	Search / examination	2
<input type="checkbox"/>	01.07.2002	<a href="#">Letter filed before dispatch of the 1st communication from the Examining Division(examination procedure)</a>	Search / examination	2
<input type="checkbox"/>	15.02.2002	<a href="#">Claims</a>	Search / examination	5
<input type="checkbox"/>	15.02.2002	<a href="#">Description</a>	Search / examination	3
<input checked="" type="checkbox"/>	15.02.2002	<a href="#">Reply to communication from the Examining Division</a>	Search / examination	2
<input type="checkbox"/>	29.10.2001	<a href="#">Annex to the communication</a>	Search / examination	1
<input type="checkbox"/>	29.10.2001	<a href="#">Communication from the Examining Division</a>	Search / examination	1

必要な資料にチェックを入れ、  
Selected documentsをクリックして、PDFでダウンロードします。

79

## II . European Patent Register All documents (3)

EUROPEAN PATENT ATTORNEYS · CHARTERED PATENT ATTORNEYS · TRADE MARK ATTORNEYS

**ダウンロードした出願人からEPOへの回答書(意見書、補正書)の例です。**

**J.A.KEMP & CO.**  
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TELEPHONE: + 44 20 7405 3292  
FACSIMILE: + 44 20 7242 8932  
E-MAIL: mail@jakemp.com  
WEBSITE: www.jakemp.com

**EPO - Munich**  
3  
15. Feb. 2002

The European Patent Office  
Directorate General 2  
Erhardstrasse 27  
80331 Munich  
Germany

13 February 2002

**Application under Accelerated Examination**

Dear Sirs

European Patent Application No. 97933762.3-2118  
UNIVERSITY COLLEGE LONDON ET AL  
Our Ref: N.71845B GCW/PT/mm

**EPOでの審査資料(包装)は、全ての資料をダウンロードすることが出来るので、大変便利です。**

In response to the communication dated 29 October 2001, please replace pages 4, 10, 11 and 21 to 23 currently on file with new pages 4, 10, 11 and 21 to 23 attached herewith. Pages 22 and 23 have been retyped. To assist the Examiner the hand-amended copy of these pages is also attached.

Claims 20 and 21 have been combined to deal with the objection raised at section (II) of the Examination Report. Subsequent claims have been renumbered accordingly.

The claim dependency of new claim 23 (original claim 24) has been corrected to deal with the objection raised at section (III) of the Examination Report.

80